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ABSTRACT

This module is the third of a series of three separate, but unified by process, minimodules, all of which are part of a larger set of twelve individualized performance-based modules, each based on a major competency needed by vocational administrators for effectively administering vocational education in local education agencies. The module focuses on developing the following competencies which vocational administrators need while attempting to coordinate vocational curriculum development: (1) initiate, monitor, and summarize vocational curriculum development efforts and prepare and distribute reports of such activities, (2) compare vocational curriculum development efforts individually through the service area committees, and through vocational curriculum consultants, and (3) adjust, recycle, and approve vocational curriculum subsystems and/or courses of study. Module content is arranged as follows: introductory section, terminal objective, summary of content, procedures, module resources, pretest, learning activities and activity sheets, and posttest. The appendixes contain a sample curriculum and a curriculum evaluation instrument (with directions), which are to be used with the learning activities. (SH)

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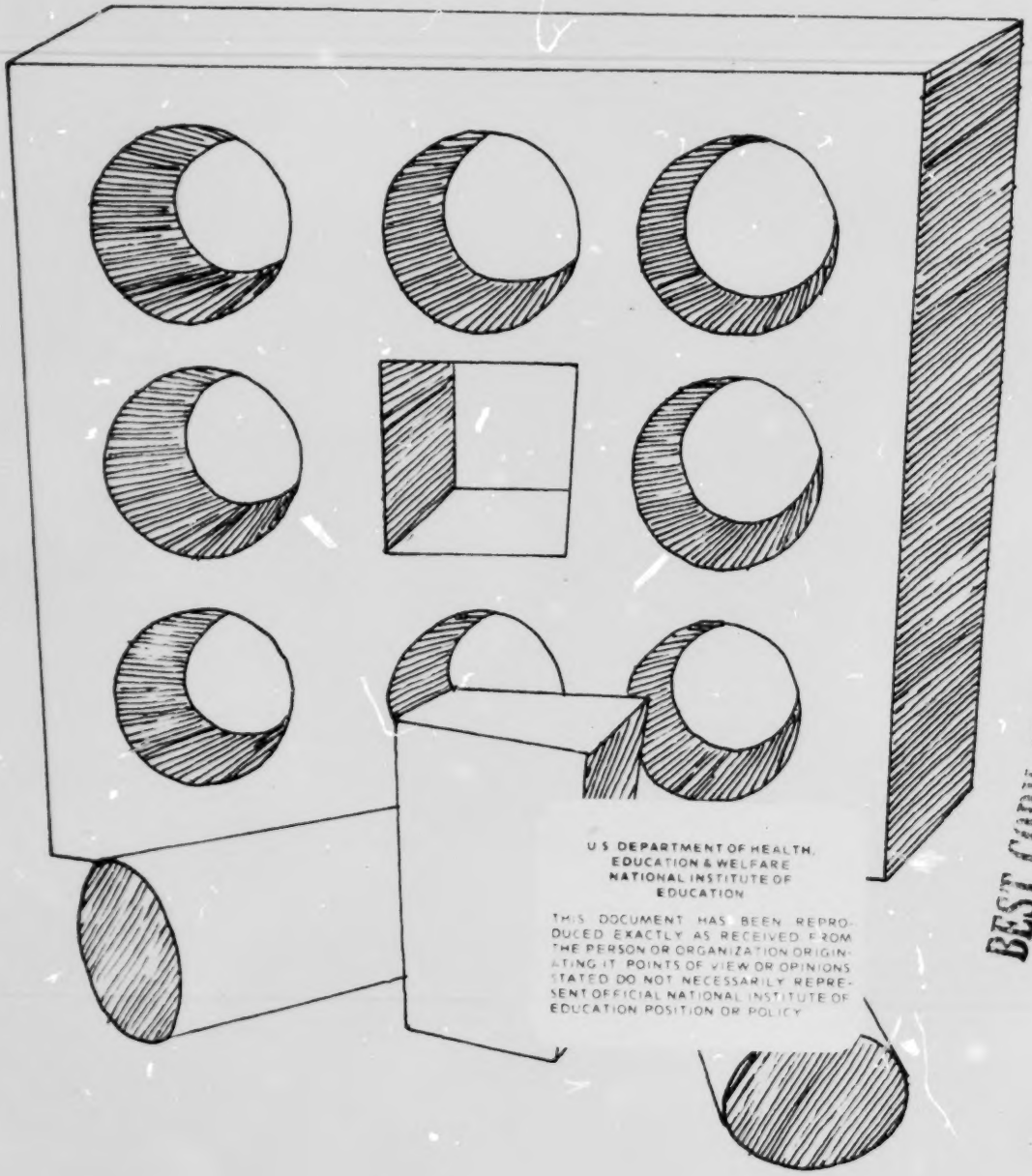
Coordinating Vocational Curriculum Development Mini-Module Number 1.3



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CE 012 809

Project: Developing A Performance Based
Professional Development Program for
Vocational Administrators - FY '75-'76
Marshall University
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Mini-Module 1.3

Coordinating Vocational Curriculum Development

INTRODUCTION: The curriculum of a vocational education program is one of the most important elements in the total program. The vocational education curriculum includes all those activities planned for the learners by the vocational program. These planned activities include, but are not limited to, laboratory instruction, work-related experiences, co-curricular activities, and all the pupil personnel services. Therefore, the vocational education curriculum is important because it is the chief determinant in the selection of teachers and other school staff, the organization of the school, the layout of physical facilities, a large portion of the total program budget, and the ultimate success (or lack thereof) of the vocational program.

Although some decisions regarding the vocational curriculum emanate from state legislatures and state departments of education, the most important curriculum decisions are those decided locally. Decisions need to be made concerning the overall philosophy of the vocational program, the courses of study to be offered, the content of these courses, strategies for teaching and evaluating the content, the guidance and placement program, and the co-curricular program of activities.

As can be assumed from the aforementioned, vocational curriculum development is a very complex effort for professional educators because it involves numerous critical decisions. Figure 1 presents a five-step scheme for determining the

nature of curriculum development decisions. These five steps are: (1) planning, (2) organizing, (3) coordinating, (4) implementing, and (5) evaluating.

This mini-module is the third in a series of three separate, but unified by process, mini-modules written for the competency-based vocational administrators curriculum. The title of the first mini-module number 1.1 was Planning for Vocational Curriculum Development. Logically, the title of the second mini-module number 1.2 was Organizing for Vocational Curriculum Development while this third mini-module is titled: Coordinating Vocational Curriculum Development.

The main intent of this mini-module number 1.3 on curriculum development is that of identifying and, in some cases, completing the major components and procedures of curriculum development which vocational administrators need while attempting to coordinate vocational curriculum development. Figure number 2 shows the organizational plan and the steps involved in the coordinating stage for vocational curriculum development. Each of the coordinating substages of directing, assessing, and controlling represents an objective and a series of related tasks and activities to be completed within this mini-module.

The contents of this mini-module are organized two ways -- one graphic, the second numeric -- in order to help the learner proceed through the contents efficiently. Each mini-module is numbered with a two digit number. Each mini-module in turn contains several substeps which are not numbered but are the "building blocks" upon which the contents are structured; these "building blocks" appear in the center of pages enclosed in a four sided figure. For each of these organizing "blocks" there will be one or more learning activities designated by a three sided figure (an incomplete "block") and a three digit number; each is a terminal objective for the learner. Each learning activity is followed by a series of tasks, noted with a two sided incomplete "block"

and a four digit number. Each task statement is an enabling objective for its terminal objective. Finally, specific tasks for each task enabling objective are noted by their task number plus a capital letter; these specific tasks are sequentially ordered and lettered.

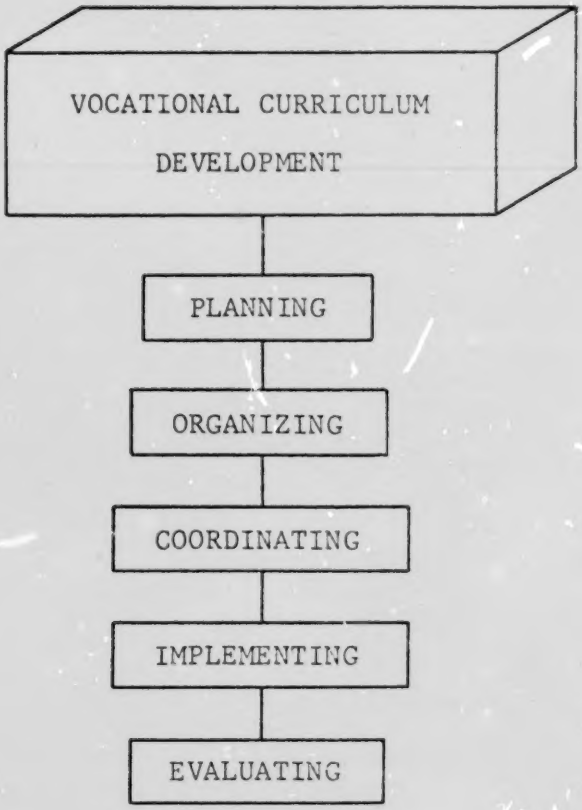


Figure 1: Overall scheme for vocational curriculum development.

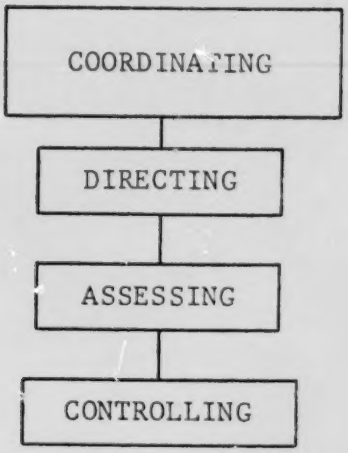


Figure 2. The steps in the coordinating stage for vocational curriculum development.

TERMINAL OBJECTIVE: The following is what you will be able to do upon successful completion of this mini-module.

The learner will demonstrate competency in coordinating vocational curriculum development by: (1) initiating, monitoring, and summarizing vocational curriculum development efforts and preparing and distributing reports of such activities; (2) comparing vocational curriculum development efforts with specifications individually, through service area (craft) committees, and through vocational curriculum consultants; and (3) adjusting, recycling, and approving vocational curriculum subsystems and/or courses of study.

CONTENT: On the following pages you will find:
Student Competency Sheet
Pretest
Learning Activities
Posttest

In the learning activities section you will find Tasks with associated Activities designed to help you accomplish these tasks, questions to answer, self-tests to monitor your progress, and, sometimes, sample answers.

PROCEDURES: After reading the Introduction, Terminal Objective, and Content:

1. Decide whether you already have the competency identified in the terminal objective and, thus, proceed directly to the Posttest.

OR

2. Proceed to the pretest and assess your present skills to determine which Learning Activities pertain to parts you need help in.

OR

3. Go straight through this mini-module completing every section in order.

Mini-Module 1.3

STUDENT COMPETENCY SHEET

PROGRAM: Vocational Administrators Curriculum

UNIT: Vocational Curriculum Development

COMPETENCY STATEMENT: Demostrate competency in coordinating vocational curriculum development by: (1) initiating, monitoring, and summarizing vocational curriculum development efforts and preparing and distributing reports of such activities; (2) comparing vocational curriculum development efforts individually, through the service area (craft) committees, and through vocational curriculum consultants; and (3) adjusting, recycling, and approving vocational curriculum subsystems and/or courses of study.

Learning Activities: Within this mini-module are several different varieties of learning activities aimed at leading you to attain and demonstrate the competencies named above. Some reading is required, other activities require that you complete several instruments contained in this mini-module, and some activities require you to plan simulated meetings and their materials. The final activity asks you to evaluate a sample curriculum with an instrument contained in this module.

Criterion Evaluation: There are specific tasks associated with the three major learning activities in this mini-module. Each of these specific tasks is an enabling objective which states exactly what behavior the learner is expected to exhibit, under what conditions he is expected to it, and how well it is to be done. Thus, each task statement in this mini-module states the exact standards by which the learner's performance is going to be judged. This is the criterion evaluation. There is a Master Performance Record Chart to record the learners's progress as he or she proceeds through this mini-module.

MODULE RESOURCES

ACTIVITY SHEETS (consumable forms in the mini-module)

Rating A Curriculum's General Objectives (RACGO)

Rating A Curriculum's Instructivional Objectives (RACIO)

A Career Education Evaluation Irstrument (Appendix B)

BOOK

Stockwell, R. E. The Stockwell Guide for Technical and Vocational Writing. Menlo Park, CA: Cummings, 1972.

OTHER

Good bond paper, 8½x11 and 4x6 index cards

Mini-Module 1.3

Self-Assessment Checklist on Coordinating Vocational Curriculum Development

FIRST: Answer all the following questions by checking either Yes or No in the space to the left of each question.

YES	NO		
___	___	1.	Have you recently (within the past two months) written an original letter of invitation to a vocational committee member?
___	___	2.	Have you recently (within the last year) prepared a working agenda for a committee of ten people to follow?
___	___	3.	Can you design an original vocational curriculum development monitoring chart containing fifteen (15) curriculum content areas and fifteen (15) curriculum development tasks?
___	___	4.	Can you complete the vocational curriculum development monitoring chart that you developed as directed?
___	___	5.	Have you summarized vocational curriculum development progress into a two (2) page report?
___	___	6.	Have you ever rated a vocational curriculum's general objectives on an instrument containing at least a dozen items/statements?
___	___	7.	Have you ever rated a vocational curriculum's instructional (behavioral, performance, etc.) objectives on an instrument containing at least fifteen (15) items/statements.
___	___	8.	Have you recently (within the past two months) planned a hypothetical or real curriculum workshop including: (a) cover letters, (b) workshop information sheets, and (c) an RSVP form?
___	___	9.	Within the last year have you coordinated the activities of outside curriculum consultants in assessing vocational curriculum produced locally?

Mini-Module 1.3

Self-Assessment Checklist (cont.)

___ ___ 10. Can you rewrite three (3) general objectives and five (5) instructional objectives to improve them?

___ ___ 11. Have you, within the past year, authored a memo advising a person or a group that their work was unsatisfactory and require that they do it over?

___ ___ 12. Have you, within the past year, evaluated a vocational curriculum using a nationally-developed instrument and summarized your evaluation on one 4x6 index cards?

SECOND: Look at your responses for questions 1 through 5; if you checked No for any of these questions, you should begin to complete this mini-module by starting with Learning Activity 1.3.1 on page 12. As you complete the various tasks, you should turn them in for checking along with the Module Performance Record Chart (MPRC). For any of the first through sixth questions that you answered Yes to, you will easily spot its associated task enabling objective in the first learning activity in this mini-module. When you come to these points, you should assemble the evidence indicating your performance of the behavior stated in the objective and turn it in for evaluation along with the MPRC.

THIRD: Look at your responses for questions 6 through 9. If you checked No for any of these questions, you should continue with this mini-module by proceeding to Learning Activity 1.3.2 on page 23. As you complete the various tasks, you should turn them in for checking together with the Module Performance Record Chart (MPRC). If you answered Yes to any of the seventh through tenth questions, you will easily locate the task associated with the question within Learning Activity 1.1.2. When you do, you should assemble the evidence that you have performed the requested behaviors stated in the objective and turn it in for evaluation together with the (MPRC).

Mini-Module 1.3

Self-Assessment Checklist (cont.)

FOURTH: Look at your responses for questions 10 through 12. If you checked No for any of these questions, you should continue with this mini-module by going to Learning Activity 1.3.3 on page 40. As you complete the various tasks within this section, you should have them evaluated and the evaluation marks and comments recorded on the MPRC. Again, as above, if you responded Yes to any of the questions numbered 10 through 12, you will probably locate the task associated with the question with Learning Activity 1.3.3. When you do, you should collect the documents, papers, etc. called for in the objective and have it evaluated by submitting it together with the MPRC.

Mini-Module 1.3

DIRECTING

LEARNING ACTIVITY 1.3.1: The learner will initiate, monitor, and summarize vocational curriculum development efforts and prepare and distribute required and optional reports regarding such activities.

TASK 1.3.1.1: Given a statement of the problem and conditions for a hypothetical vocational curriculum development committee meeting, the learner will write and have typed an original sample invitational letter following standard business letter format and answers to the five "W's" of journalism.

Task 1.3.1.1-A: Locate the textbook titled: The Stockwell Guide for Technical and Vocational Writing by R. E. Stockwell, Menlo Park, CA: Cummings, 1972.

AND

Task 1.3.1.1-B: Read "Writing Style," pp. 1-3 and Appendix E, pp. 285-287; and "Letters," pp. 20-51 of the Stockwell Textbook.

AND

Task 1.3.1.1-C: Locate the Information Sheet for this task which is titled: Vocational Curriculum Development Committee Meeting Activities located near this page in the mini-module. Read the top portion of the page labeled "The Letter" noting the problems as presented to you and the special conditions existing in the hypothetical situation.

AND

Task 1.3.1.1-D: Write an original letter to the vocational teacher named in the problem inviting

he or she to the curriculum development committee meeting as outlined in the problem. The completed letter of invitation must: (1) be typed on a piece of 8-1/2 x 11 white bond paper, (2) respond to the five (5) "W's" of journalism (who? what? when? where? why?), and (3) conform to the business letter standards of form. Don't forget to sign the letter with your name!

SELF-EVALUATION: Did you write an original letter responding to the situation as spelled out in the information sheet? Does your typed letter conform to the style of contemporary business letters? Finally, does it contain responses to the five basic questions of who? what? where? when? and why?

If you can answer affirmatively to all the above questions then you should turn it in for checking by your instructor. If you had to respond negatively to any of the preceding questions, you should correct your letter and submit it for checking. When this is done, you should proceed to the next task in this mini-module.

Task 1.3.1.2: Given (a) a list of duties to be accomplished and (b) a statement of conditions for a hypothetical vocational curriculum development committee meeting, the learner will prepare an agenda for the meeting that responds to all the conditions and problems named.

Task 1.3.1.2-A: Locate the Task 1.3.1.1 & 2 Information Sheet which is titled: Vocational Curriculum Development Committee Meeting Activities located nearby in this mini-module. Read the second portion of the page labeled "The Agenda" noting the problem as presented and the special conditions existing in the hypothetical situation.

AND

Task 1.3.1.2-B: Prepare an agenda for the vocational curriculum development committee

Task 1.3.1.1 & 2 Information Sheet

Vocational Curriculum Development Committee
Meeting Activities

Task 1.3.1.1: The Problem

Imagine that you are the curriculum coordinator for a new area vocational-technical school being built. You are heading up all the curriculum development efforts for the school. The director of the area vocational-technical school, with the appropriate committees and procedures, has hired the faculty for the school.

Your job is to invite each vocational education teacher to the curriculum development committee meetings. Each teacher is to help develop the curriculum for his/her specific teaching speciality. The effort is funded so you can pay each teacher $50/day. You are specifically assigned to invite Mr. Buzz Saw, the carpentry teacher to his first curriculum development committee meeting; all first meetings are only a single day. It is to be a full workday session and must meet at the local Odd Fellows Hall, 711 Goofey Street, Anywhere, USA because the construction at the school would impair the thinking processes. The funding can provide coffee, donuts, and lunch for Buzz Saw but not his mileage expenses. Additionally, indicate what materials he is to bring with him keeping in mind that the funding will pay for the incidental supplies like paper, pencils, erasers, etc. but not sample texts, audio-visual aids or other expensive materials. April 1, 1977 is the date of the meeting.

Task 1.3.1.2: The Agenda

After the invitational letter has been written for the vocational education teacher named above regarding the first meeting for curriculum development, the next task for the curriculum coordinator is to prepare an agenda for the meeting. Recall that each teacher is to help prepare the curriculum together with other curriculum committee members. The meeting is scheduled for the date of April 1, 1977 at the Odd Fellows Hall, 711 Goofey Street, Anywhere, USA. In attendance will be the teacher as named, a curriculum consultant in vocational education and two members of the service area (craft) committee who voiced an interest in helping put the curriculum together.

As stated above, there will be time and goodies for mid-morning coffee and funds for a lunch have been provided. Assume that you have to be able to secure sample texts, on a loan basis only, for the carpentry curriculum development committee to review. Also, two distributers of audio-visual aids for carpentry programs have told you via phone calls that they may be able to attend and display their products. Other incidental materials like paper, pencils, etc. will be provided by the school.

The main task of the carpentry curriculum committee at the meeting is to develop the first draft of the carpentry curriculum. You are to prepare an agenda enumerating tasks that will lead to this end. It will be your responsibility to get their draft typed in a standard format, copied, and mailed out to each committee member for their review prior to the next committee meeting (as yet, not scheduled).

meeting that is to be enclosed with the invitation letter written for Task 1.3.1.1 above. The agenda should name the time, place, and persons involved; duties or tasks to be accomplished; materials participants are to bring (if any); and any special instructions called for by the problem as given in the information sheet. The agenda is to be prepared on a sheet of 8-1/2 x 11 white bond paper, typed, and be suitable for copying by either the "wet" process or the "dry" process.

SELF-EVALUATION: Have you prepared a typed, 8-1/2 x 11 page that is an agenda which addresses itself to all the problems and conditions stated in the information sheet for this task? If you feel you have done this as stated, you should turn it in for checking and go forward to the next task in this mini-module.

If you haven't prepared the agenda according to the standards names, you should correct it and then submit it for checking. When this is done, you should go on to the next task in this mini-module.

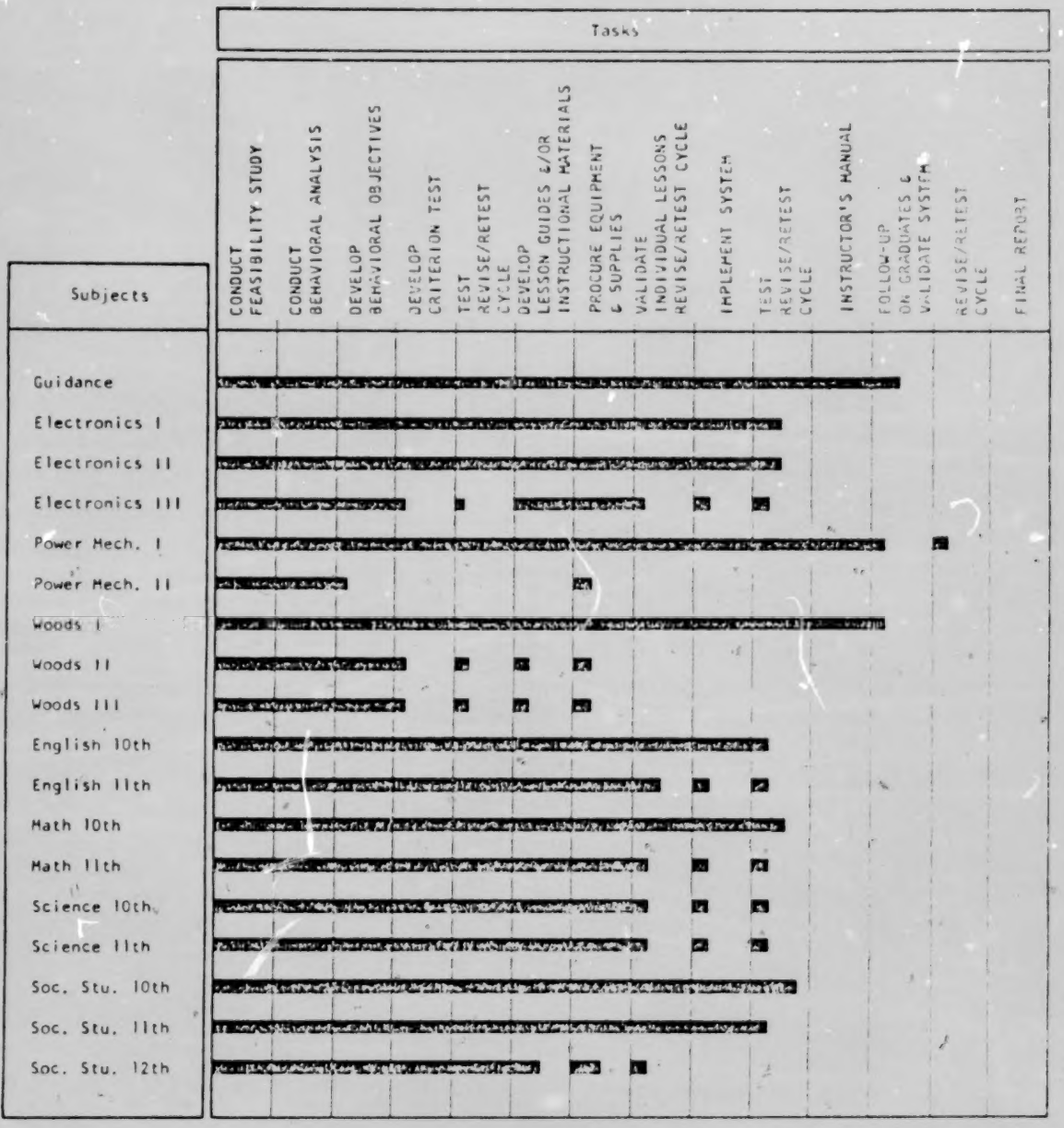
TASK 1.3.1.3: Given an example of a vocational curriculum development progress chart and specifications for the same, the learner will design an original vocational curriculum development monitoring chart that responds to all the specifications as provided and is suitable for copying via the "dry" process.

Task 1.3.1.3-A: Locate the Task 1.3.1.3 & 4 Information Sheet, which is titled Project Able Progress Chart, nearby in this mini-module.

AND

Task 1.3.1.3-B: Study the content, organization, and layout of the Project Able Progress Chart. The purpose of this sample chart is to show you one effective means of monitoring vocational curriculum development efforts.

PROJECT ABLE PROGRESS CHART *



* September 1970

Figure 5

*Source: Ullery, J. W. & Nicastro, J. S. Project Able: Development and Evaluation of an Experimental Curriculum for the New Quincy, Mass. Vocational-Technical School. Pittsburgh: American Institutes for Research, 1970.

OR

Task 1.3.1.3-C: Locate other examples of progress charts for management situations. Although it is unlikely that you will be able to find many progress (monitor) charts for vocational curriculum development, it should not be too difficult to locate such charts designed for other educational developmental efforts. Such charts should be studied as stated above for the purposes of securing input for your design of a vocational curriculum development monitoring chart.

AND

Task 1.3.1.3-D: Design an original vocational curriculum development monitoring chart following these specifications:

1. completed on 8-1/2 x 11 white bond paper
2. typed only, no pencil or ball point pen marks
3. your name in the upper right hand corner
4. Include a title at the top
5. on one axis, horizontal or vertical, list a minimum of fifteen (15) vocational curriculum development content areas (courses) including two (2) each from the vocational education divisions of agriculture, business, distributive, health, home economics, and trade and industrial plus the vocational subsystems of pupil personnel services, work-related experiences, and co-curricular activities
6. on the other axis, horizontal or vertical, list a minimum of fifteen (15) vocational curriculum development tasks such as: advisory committee formed, first draft of curriculum written, consultants' reviewed curriculum as revised, etc.
7. instructions on how to complete the chart (or fill it out), or, as a minimum, a set of symbols and how to place them
8. the chart must be basically a graphic one so that readers will be able to interpret it visually as well as reading the content terms and tasks; but it must be uncompleted (blank) at this stage
9. the completed chart must produce several "dry" copies which are readable and clear

10. you should make at least one "dry" copy of it for a later task

SELF-EVALUATION

Have you designed an original vocational curriculum development monitoring chart that follows the ten (10) specifications listed above? If yes, then good! You should submit it for checking and advance to the next task in this mini-module.

If you haven't completed the chart as specified above because you feel you need more information or help on the topic perhaps you should reread the tasks associated with the design of the chart, locate more examples of such charts for helpful input, or make arrangements to secure more information on the topic from your instructor. When you have completed the chart as specified and turned it in for checking, then go on to the next task.

Task 1.3.1.4:

Having the vocational curriculum development progress chart previously developed, the learner will complete it using the directions and/or symbols supplied and indicate hypothetical progress stages for each vocational content area and curriculum subsystem with a minimum of ten different stages of task completion being reported.

Task 1.3.1.4-A:

Secure a copy of the vocational curriculum development monitoring chart that you designed for the previous task.

AND

Task 1.3.1.4-B:

Complete the chart as instructed using the symbols provided in the key. You should denote the state of task completion for all fifteen (15) vocational curriculum content areas and subsystems and, further the minimum of ten (10) different stages of task completion should be noted for the content areas. Last, the chart should be completed in ink - not pencil or ball point pen - so that it recopies satisfactorily.

SELF-EVALUATION

Is the copy of your curriculum development monitoring chart completed as directed

in ink for all fifteen (15) vocational curriculum areas? And does your completed chart report, at a glance, a minimum of ten (10) different stages of task completion for the various content areas? It does! Then good! Turn it in for checking and go on to the next task.

If you had to honestly say no to either of the above self-evaluation questions, then you should correst its flaws or seek aid from your instructor in completing the task. Perhaps you have found out that your own chart completion directions were unclear. Heaven forbid! When it is corrected, it should be turned in for inspection, and then you should go on to the next task.

Task 1.3.1.5: Given a completed vocational curriculum development progress chart, the learner will analyze and summarize the information into a narrative report of not longer than three typed pages to be submitted to the president of a vocational-technical school board.

Task 1.3.1.5-A: Locate the Task 1.3.1.3 & 4 Information Sheet titled, Progress Able Progress Chart in this mini-module. Recall that this same information sheet was used earlier in the completion of another task. Study the completed progress chart for each vocational curriculum course of study and/or three curriculum subsystems. Then compare the progress of each course and/or subsystem to each other for all the activities listed. Put another way, analyze the information on both the horizontal axis and the vertical axis in detail.

AND

Task 1.3.1.5-B: Write an original summary of the information gleaned from the vocational curriculum development progress chart analyzed in the task above. The report is to be typed and the maximum length for this report is three pages. The vocational

curriculum development report is to be prepared specifically for the hypothetical president of the vocational-technical school board. His name is Mr. Andre' Penewer. Andre' Penewer is the owner of a large, successful furniture and appliance store in the community. Assume that he is not knowledgeable about the various task terms used in the Project Able Progress Chart, but he is accustomed to receiving brief, concise written progress reports from the vice-presidents and other managers in his business operations.

AND

Task 1.3.1.5-C: Using the writing skills and the same criteria for successful performance demonstrated in Task 1.3.1.1 in this mini-module, write original cover letters to be used in distributing the vocational curriculum development report to: (1) Mr. Andre' Penewer himself, (2) the other members of the vocational-technical school board, (3) the director of the vocational-technical school, and (4) a fictional member of the State Department of Education, Bureau of Vocational Education who had called you and asked for a vocational curriculum development progress report.

SELF-EVALUATION: By now you have produced an original, three page maximum length summary of vocational curriculum development and four original cover letters to be used in the distribution of the report to various persons. Have you written and typed the report and its four cover letters as specified in the above task statements? If you have done this, then turn them in for checking and go on to the next step in this mini-module.

If you haven't completed all of the five requested items for this task as specified, you should do so. If you need assistance in completing them, you should make arrangements to visit with your instructor and

plan a corrective course of action for your writing efforts. When the five writing efforts have been completed as specified then you should submit them for checking and proceed to the next step in this mini-module.

PAUSE:

Now would be a good time to review what you have completed and think about what lies ahead. You have just completed a series of sequenced tasks which helped you initiate, monitor, summarize, and report on vocational curriculum development efforts. These tasks form the first "building block" in this module - DIRECTING. There are two other "building blocks" in this mini-module. The next one is ASSESSING and the last one is CONTROLLING.

This would be an excellent time to reward yourself for completing the DIRECTING section by treating yourself to some little favor or reward for a job well done - a good, cold beer, watching a new movie, or whatever. When satisfied, go on to the ASSESSING section.

Mini-Module 1.3

ASSESSING

LEARNING ACTIVITY 1.3.2: The learner will compare vocational curriculum development efforts to specifications individually, through service area (craft) committees, and through vocational curriculum consultants.

TASK 1.3.2.1: Given a sample curriculum and an instrument, the learner will compare vocational curriculum development efforts to specifications by rating each general objective (or goal statement), up to a maximum of ten, on all the instrument's items.

Task 1.3.2.1-A: Locate the sample curriculum unit in this mini-module for this task. Appendix A in this mini-module is the sample curriculum unit titled "The Oil Industry," it is taken from a larger document titled: A Junior High School Multi-discipline, Multi-cluster Career Education Curriculum prepared by B. Novick for the New Jersey Department of Education.

AND

Task 1.3.2.1-B: Locate the Task 1.3.2.1 Activity Sheet which is the Rating A Curriculum's General Objectives (RACGO) instrument. Note that this activity sheet is a consumable form to be completed and turned in for checking.

AND

Task 1.3.2.1-C: Study the sample curriculum unit (Appendix A) in its entirety until you are sure you have identified the unit's general objectives (goal statements). Then, rate each of the curriculum's general objectives according to the

key provided on the instrument regarding the extent of your agreement for the numbered items/ statements. Recall that "The Oil Industry" curriculum was written for pre-adolescent learners and, therefdore, you should rate its objectives accordingly. Be sure that you place your rating for each general objectives in the correct column on the instrument. When completed you will have a rating for each general objective in terms of its clarity, appropriateness, worthiness, and consistency.

SELF-EVALUATION: Did you locate the sample curriculum and the RACGO, find the curriculum's general objectives, and complete the RACGO for each general objective (up to a maximum of ten) on all twelve items or statements provided? If you have done all these steps, then turn the completed RACGO in to your instructor for checking and go on to the next task in this mini-module.

If you haven't completed the steps as named above, or if you feel you need help in responding to some of the RACGO items, then perhaps you should schedule a conference with your instructor in order to plan corrective steps to be taken. When the RACGO instrument has been completed as directed, turn it in and proceed to the next task.

TASK 1.3.2.2: Given a sample curriculum and an instrument, the learner will compare vocational curriculum development efforts to specifications by rating each instructional objective, up to a maximum of ten, on all the instrument's items.

Task 1.3.2.2-A: Again locate the sample curriculum in this mini-module for this task and the previous one. It is Appendix A and is titled "The Oil Industry," This sample curriculum is part of a larger document titled: A Junior High School Multi-discipline, Multi-

Date: _____

Task 1.3.2.1 Activity Sheet

Rating A Curriculum's General Objectives (RACGO)

Directions: This instrument contains statements about the clarity, appropriateness, worth, and consistency of a curriculum's general objectives. You are asked to state the extent of your agreement with each statement by inserting the letter corresponding to your agreement - disagreement, according to the key below, in the column under each objective's number.

Key:
A = Fully Agree
B = Agree
C = Disagree
D = Strongly Disagree
E = Not Applicable

No.	STATEMENT*	General Objectives									
		1	2	3	4	5	6	7	8	9	10
1.	The general or global objectives for this curriculum are clearly specified.										
2.	The general objectives are appropriate for the grade level and/or age range required for students.										
3.	The general objectives are appropriate for and attainable by the students who have the necessary general background.										
4.	The general objectives are appropriate for and attainable by the students who have the necessary specific prerequisites.										
5.	The general objectives of this curriculum represent important and worthwhile outcomes for students with the required age range and/or grade level.										

Name: _____

Date: _____

Task 1.3.2.1 Activity Sheet (Cont.)

Rating A Curriculum's General Objectives (RACGO) (Cont.)

No.	STATEMENT*	General Objectives									
		1	2	3	4	5	6	7	8	9	10
6.	The general objectives of this curriculum represent important and worthwhile outcomes for students with the stated general background.										
7.	The general objectives stated for this curriculum represent important and worthwhile outcomes for students with specific prerequisites.										
8.	The general or global objectives stated for this curriculum are consistent with the basic assumptions which underlie the curriculum.										
9.	The general objectives are consistent with the structure of the curriculum.										
10.	The teaching methods outlined for this curriculum are consistent with the general objectives.										
11.	The specific prerequisites for students are consistent with the general objectives.										
12.	The evaluation procedures are consistent with the general objectives.										

*Instrument designed by M. L. Meehan. Items taken from J. Weiss, J. Edwards, E. O. Dimitri. Formative Curriculum Evaluation. Ontario: Ontario Institutes for Studies in Education, N. D.

cluster Career Education Curriculum prepared by B. Novick for the New Jersey Department of Education, Division of Vocational Education.

AND

Task 1.3.2.2-B: Locate the Task 1.3.2.2 Activity Sheet which is the Rating A Curriculum's Instructional Objectives (RACIO) instrument. Note that this Activity Sheet is a consumable form to be completed and turned in for checking.

AND

Task 1.3.2.2-C: Study the sample curriculum (Appendix A) in its entirety until you are sure you have identified the instructional objectives. Note that the numbered instructional objectives appear in the columns labeled "outcome." Then, for the first ten instructional objectives in order from the beginning of the sample curriculum, rate it according to the key provided on the RACIO regarding the extent of your agreement to the numbered items/statements. Insert your response (A, B, C, D, or E) in the column for each instructional objective to the right of each RACIO item or statement. Again, recall that this particular curriculum was written for preadolescents and this fact should be kept in mind when rating the instructional objectives. Be certain that your rating for each objective is in the correct column. When the RACIO is completed, you will have a rating for each instructional objective (or at least the first ten) in terms of its clarity, appropriateness, worthiness and consistency.

SELF-EVALUATION: Have you completed the RACIO for the first ten instructional objectives from the sample curriculum? Have you responded to each and every item/statement for the first ten instructional objectives? If yes is your answer to both of these questions, then turn in the completed RACIO (with your name on it)

Name: _____

Date: _____

Task 1.3.2.2 Activity Sheet

Rating A Curriculum's Instructional Objectives (RACIO)

Directions: This instrument contains statements about the clarity, appropriateness, worth, and consistency of a curriculum's instructional objectives. These instructional objectives may be labeled performance, behavioral, specific, classroom or other names; they are distinguished from the curriculum's general or global objectives. You are asked to state the extent of your agreement with each statement by inserting the letter corresponding to your agreement - disagreement, according to the key below, in the column under each objective's number.

Key:

A = Fully Agree
B = Agree
C = Disagree
D = Strongly Disagree
E = Not Applicable

No.	STATEMENT*	General Objectives									
		1	2	3	4	5	6	7	8	9	10
1.	The instructional objectives for this curriculum are clearly stated.										
2.	The instructional objectives are appropriate for the required grade level and/or age range of students.										
3.	The instructional objectives are appropriate for and attainable by students with the general background.										
4.	The instructional objectives are appropriate for and attainable by students with the specific prerequisites.										
5.	The instructional objectives of this curriculum represent important and worthwhile outcomes for students with the										

Name: _____

Date: _____

Task 1.3.2.2 Activity Sheet (Cont.)

Rating A Curriculum's Instructional Objectives (RACIO) (Cont.)

No.	STATEMENT*	General Objectives									
		1	2	3	4	5	6	7	8	9	10
	stated general background.										
7.	The instructional objectives stated for this curriculum represent important and worthwhile outcomes for students with the specific prerequisites.										
8.	The instructional objectives of the curriculum are consistent with the basic assumptions which underlie the program.										
9.	The instructional objectives of this curriculum are consistent with the general objectives.										
10.	The instructional objectives are consistent throughout the curriculum.										
11.	The instructional materials and resources for the curriculum are consistent with the instructional objectives.										
12.	The instructional activities for the curriculum are consistent with the instructional objectives.										
13.	The instructional objectives are consistent with the way the curriculum is structured.										
14.	The teaching methods suggested for the curriculum are consistent with the instructional objectives.										

Name: _____

Date: _____

Task 1.3.2.2 Activity Sheet (Cont.)

Rating A Curriculum's Instructional Objectives (RACIO) (Cont.)

No.	STATEMENT*	General Objectives									
		1	2	3	4	5	6	7	8	9	10
15.	The evaluation procedures outlined for the curriculum are consistent with the instructional objectives.										
16.	The time requirements allotted for the curriculum are consistent with the attainment of the instructional objectives.										

*Instrument designed by M. L. Meehan. Items taken from J. Weiss, & Edwards, & O. Dimitri. Formative Curriculum Evaluation. Ontario Institutes for Studies in Education, N.D.

for checking and go on to the next task.

If you are having trouble completing any of the steps as outlined then you should probably schedule a meeting with your instructor to plan corrective steps. When you have corrected your deficiency and the RACIO is complete as directed, turn it in and go on to the next mini-module task.

TASK 1.3.2.3: Given a hypothetical problem and its details, the learner will coordinate the activities of service area (craft) advisory committees in assessing vocational curriculum development efforts by planning a hypothetical curriculum workshop including (a) cover letters, (b) workshop information sheet(s), and (c) an RSVP form.

Task 1.3.2.3-A: Locate the information sheet for this task which is titled: Vocational Advisory Committee Curriculum Workshop Problem. Read this information sheet carefully noting the many assumptions, specifics, and facts provided regarding a hypothetical situation.

AND

Task 1.3.2.3-B: Review, if necessary, the section labeled "Letters" on pp. 20-51 of The Stockwell Guide for Technical and Vocational Writing by R. E. Stockwell, Menlo Park, CA: Cummings, 1972.

AND

Task 1.3.2.3-C: Write an original cover letter, which may be a form letter, to the vocational advisory committee members inviting them to attend the curriculum workshop as outlined in the Task 1.3.2.3 Information Sheet. The completed letter is to serve as a cover for the detailed information sheet for the project (which is also the next task in this series). The completed cover letter must: (a) be typed on a piece of 8-1/2 x 11 white bond paper, and (b) conform to the accepted form of business letters. Don't forget to sign

your name!

AND

Task 1.3.2.3-D: Write an original information sheet for the advisory committees workshop to be mailed with the cover letters to each advisory committee member. The completed information sheet is to contain the following sections as a minimum: Introduction, Details, Purposes and Tasks, and the Agenda. The completed workshop information sheet is to be typed on a maximum of two (2) pieces of white bond 8-1/2 x 11 paper.

AND

Task 1.3.2.3-E: Design an original RSVP form to be mailed out with the cover letter and workshop information sheet as directed in this task. The completed RSVP form is to be typed on white bond paper and may be less than a full sheet in length. The completed RSVP form for the vocational advisory committees curriculum workshop must: (a) include provisions for allowing the respondent to indicate whether or not he or she is going to attend, (b) indicate which meal the respondent chooses for the Saturday luncheon, (c) the address to which it is to be mailed, (d) the deadline date for receiving the RSVP, and (e) the name and phone number of a contact person at the vocational-technical school if the respondent has any questions needing answers.

SELF-EVALUATION: By now you should have three completed items pertaining to the advisory committees curriculum workshop. The three items include: (a) a cover letter, (b) a workshop information sheet, and (c) an RSVP form. These three items are interrelated and form a unified set of materials for the coordination of a workshop in which each advisory committee assesses the curriculum development efforts for its particular course of

Task 1.3.2.3 Information Sheet

Vocational Advisory Committee Curriculum
Workshop Problem

Imagine that you are the curriculum coordinator for a new area vocational-technical school being built. The teaching staff and the guidance/placement staff have been identified and hired. The curriculum development efforts have been partially funded and there is a year to put together the school's curricula.

Assume that the vocational advisory committees have already been formed, that they have met, and that each has its chairperson already selected. Assume, too, that the teacher for each course of study has already met and worked with the advisory committee for his/her course for a working session such as equipment selection. Further, you can assume that you do not have to send a cover letter or an agenda to the teachers because this curriculum development workshop was scheduled at the time they signed to be on the staff for the school and they are already committed to attending.

Because the advisory committee members may not be available during the middle of the workweek you have scheduled the workshop for a Friday evening and all day Saturday. Funding will allow you to pay each advisory committee member $75.00 for his or her efforts - but only if the person attends both sessions and if the requested tasks are completed by the committee of which he or she is a member. Assume that all the advisory committee members live within commuting distance of the workshop and no funds for their travel or lodging are necessary. Lunch on Saturday will be provided by the project funds.

The curriculum workshop for the advisory committees is scheduled at the Horney Inn Motel, just off the Shady Lane Freeway near the city of Anytime, Any State. The Horney Inn has agreed to provide meeting rooms sufficient for your committees provided all participants dine at one time in the Inn's banquet room on Saturday. Your budget permits your participants to have a choice of either the swiss steak or the half roasted chicken menus. Date of the workshop is November 12 and 13, 1980. The Friday Evening session goes from 7:00 PM till 10:30 PM and

Task 1.3.2.3 Information Sheet (Cont.)

Vocational Advisory Committee Curriculum
Workshop Problem (Cont.)

and the Saturday session starts at 9:00 A.M. and ends at 4:00 PM with an hour off for the sit down meal.

The purpose of the day and one-half workshop is to review the curriculum efforts completed to date, assess them in terms of their fulfilling the predesigned curriculum specifications, and to provide data for the curriculum coordinator to use in preparing a curriculum report. Assume that all the curriculum assessment instruments have been designed and will be ready for use during the workshop. However, these instruments have not been named specifically as yet, and this will have to be done at this time. All the necessary materials such as pencils, tablets, and paper clips will be provided by the school.

study or curriculum subsystem. The basis upon which your set of materials will be assessed rests not only upon the details of each item as specified in each task above, but also the extent to which the set of materials are unified - "hang together" as it were.

If you have prepared the three items as specified and you feel they are unified, then you should turn them in for checking and advance to the next task in this mini-module.

If your three items do not seem to be unified or if there is any inconsistency between them you should correct it before submitting them. When your three items are completed as specified and submitted, then you can proceed to the next task.

TASK 1.3.2.4: Given a hypothetical problem and its details, the learner will recommend and coordinate the activities of outside vocational curriculum consultants in assessing vocational curriculum development efforts by (a) writing an original letter of invitation to a consultant, (b) preparing an original background information document(s) for the consultant, and (c) write a follow-up thank you letter to the consultant.

Task 1.3.2.4-A: Assume that you, as the curriculum coordinator for the new vocational-technical school discussed previously in this section have made several telephone calls to the state department of education, division of vocational education leaders asking for names of vocational education curriculum consultants who would be qualified at reviewing the vocational education courses of study or subsystems that have been developed for your vocational-technical school. Your task is to write an original letter of

invitation to Ms. Barb B. Doll, cosmetology teacher, Mingo Junction Technical-Trade School, Gringo Gap, Anystate asking her to consider serving as a vocational curriculum consultant for the purposes of reviewing the cosmetology curriculum for your school thus far developed. The review is expected to take no more than one day's work. Refer to the Background Information and Tasks for Consultants sheets (to be developed in the next task in this series) for relevant details about the potential curriculum reviewer's duties. The completed invitation letter must: (a) be typed on 8-1/2 x 11 white bond paper, and (b) conform to the accepted form of business letters. Don't forget to sign your name!

AND

Task 1.3.2.4-B: Write an original background information and task sheet for the vocational curriculum consultants. The purpose of this information sheet is to lay a foundation upon which the curriculum consultant can make a decision to accept or reject the consultantcy offer. The completed sheet must bear the title: Background Information and Tasks for Curriculum Consultants and must include the following sections: (a) Introduction, (b) Definition of Terms, (c) Consultant's Tasks, (d) Details, and (e) Agenda. The types of information needed for each of these background sheet sections is contained on the Task 1.3.2.3-B Information Sheet titled: Contents and Requirements for the Consultants Background and Information Sheet.

AND

Task 1.3.2.4-C: Write an original thank you letter to Ms. Barb B. Doll. Assume that Barb B. Doll agreed to and did review the cosmetology curriculum as outlined. Indicate in your letter that you, as the vocational curriculum coordinator, liked her work well enough that you may want to utilize her services again. On this issue don't be too

Task 1.3.2.3-B Information Sheet

Contents and Requirements for the Consultants' Background and Task Sheet

The purpose of this information sheet is to state (1) the content sections of the Background Information and Tasks for Curriculum Consultants' sheet(s), and (2) name other requirements of the sheet(s) which will serve as criteria for evaluation of the completed product.

1. The completed sheet(s) must contain a minimum of five (5) sections, labeled as below, that address themselves to specifics as named in each section.

   A. Introduction: The purpose of this section is to provide the consultant with background information necessary for efficient assessment of the curriculum as developed. This section should provide information regarding: (a) the history of the school, (b) the faculty, (c) the projected curriculum, (d) student body information, (e) community information, (f) employment and economic data for the area. These categories of information should serve only as the minimum outline of information needed, not the maximum. Supplementary brochures and flyers may be included in the package of information mailed to the prospective consultant. Your task is state hypothetical information for all these sections.

   B. Definition of Terms: Define terms used in the curriculum as developed for the vocational-technical school. If the vocational curriculum includes terms that have been generally accepted in the field and they have been used in the curriculum in that manner say so. However, the completed information sheet should state if any terms have special definition applicable just to the curriculum prepared for the hypothetical school described in the preceding section. Your task is to state a minimum of one definition for each situation just described in this section.

   C. Consultant's Tasks: State what is expected of the vocational curriculum consultant. Be specific in delineating projected tasks and duties for the consultant. If helpful,

Task 1.3.2.3-B Information Sheet (Cont.)

Contents and Requirements for the Consultants' Background and Task Sheet (Cont.)

name instruments and devices that the consultant is to complete as he reviews the vocational curriculum.

D. Details: In this portion of the background and tasks sheet, state the hypothetical date, place, time, and specific location for the one-day consultant's review. Provide driving directions to Gringo Gap, Anystate and/or enclose a map if necessary. Provide information on lodging and dining facilities in case the consultant desires to drive in the night before his or her reviewing. State specifically whether or not these expenses will be reimbursed, and if so, just how much. Give the name, title, address, and telephone number for the school's contact person. Provide information regarding the payment for the consultant services (at $150.00/day); enclose and refer to any required agreement forms or contracts.

E. Agenda: List the agenda for the consultant's day including times, places, and tasks to be accomplished.

2. Other Requirements:

A. The completed sheet must be typed.
B. It must be on 8-1/2 x 11 white bond paper.
C. Every page is to be numbered and titled.
D. The title must be as specified earlier on this sheet.

specific because you wish to leave all your options open as to which curricula may be ready for her to review; but be general enough to leave several doors open in case Ms. Doll desires also to be a consultant on your project. Type this thank you letter on 8-1/2 x 11 white bond paper, adhering to standard business letter format, and don't forget to sign your name!

PAUSE:

You have just completed a series of sequenced tasks which simulated the assessment of vocational curriculum development efforts. These tasks formed the second "building block" in this module-ASSESSING. The last "building block" in this mini-module is CONTROLLING.

This would be a good time to give yourself a pat on the back for completing the assessing section by rewarding yourself. The suggestion here is to treat yourself to the kind of thing that you ordinarily give yourself on a job well done; perhaps its the consumption of a box of chocolates or a bag of fresh cashew nuts or something else. When rewarded, go onward to the CONTROLLING section.

Mini-Module 1.3

CONTROLLING

LEARNING ACTIVITY 1.3.3: The learner will adjust, recycle, and approve vocational curriculum subsystems and/or courses of study.

TASK 1.3.3.1: Given a sample curriculum previously assessed and the completed instruments from that evaluation, the learner will determine the numerical rating of each general and instructional objective and adjust the lowest three (3) general objectives and the lowest five (5) instructional objectives to meet the program specifications.

Task 1.3.3.1-A: Secure the completed Task 1.3.2.1 Activity Sheet which is the Rating A Curriculum's General Objectives (RACGO) instrument from the first section in this mini-module. Next, secure the completed Task 1.3.2.2 Activity Sheet which is the Rating A Curriculum's Instructional Objectives (RACIO) instrument from the first section of this mini-module. Note that both of these instruments include a key of five steps of A through E. Your task is to convert each letter rating on the completed RACGO and RACIO instruments to a numerical rating using the following designations: A = five (5) points, B = four (4) points, C = three (3) points, D = two (2) points, and E = one (1) point. This conversion of letter ratings to numerical scores can be accomplished right on the RACGO and RACIO instruments themselves.

AND

Task 1.3.3.1-B: Total the vertical columns for each general objective (goal statement)

and each instructional objective on the RACGO and RACIO instruments. From the totaled general objectives (goals), determine the three (3) lowest ranking general objectives as rated on your RACGO. If there is a tie for the third and second ranked general objectives, flip a coin to determine which is lower than the other. Next, determine the five (5) lowest ranking instructional objectives from the RACIO; break a tie with a coin toss as above.

Task 1.3.3.1-C: Rewrite the three (3) lowest general objectives (goals) from the RACGO instrument as you completed it and rewrite the five (5) lowest instructional objectives from the RACIO instrument as you completed it. The rewritten general objectives (goals) and instructional objectives should reflect better the concerns of clarity appropriateness, worthiness, and consistency as stated in the individual items/statements on both the objective rating instruments. It would not be asking too much to expect a minimum of a ten (10) point increase in the total point value for each of the rewritten objectives if they were rerated on the RACGO and RACIO instruments. (Your checker may actually rerate the revised objectives using the RACGO and RACIO instruments.

AND

Task 1.3.3.1-D: Retype the pages of the sample curriculum from Appendix A - "The Oil Industry" - in this mini-module to include your rewritten general and instructional objectives. Use some means of identification to help the checker quickly spot the rewritten objectives; this could be a note, a visual symbol, or a color symbol. Be sure to retype <u>all</u> the <u>full</u> pages on which <u>any</u> of the rewritten objectives appear. The purpose of this directive is to aid the writer and the evaluator check the impact of rewritten objectives on the

other facets of the sample curriculum. It may well be that some general objectives and instructional objective changes may trigger the need for other changes in the curriculum from what was originally prepared. Also, be sure that your rewritten curriculum conforms to the same style as the original curriculum.

SELF-EVALUATION: You should now have a set of typed sheets which include the rewritten general objectives (goals) and instructional objectives -- the lowest three of the former and the lowest five of the latter, plus any additional adjustments that these objective rewrites may have necessitated in the sample curriculum. The completed curriculum pages are to identify those portions which you rewrote. Additionally, the pages are to conform in layout and style to the original curriculum pages as appearing in Appendix A.

If you have the set of resources as described directly above, then you should hand them in for checking and go to the next mini-module task. If you do not have the revisions completed as directed, you should correct your problem(s) or if you feel that you cannot do it alone, schedule a meeting with your instructor to plan steps to improve your efforts. When the completed set of revisions is turned over to the checker, you should advance to the next task.

TASK 1.3.3.2: The learner will recycle unsatisfactory vocational curriculum development efforts by authoring a memorandum requesting that the curriculum be rewritten to improve those portions rated low on previously completed instruments. The completed memo will be evaluated on its clarity and form and must not be longer than one page.

Task 1.3.3.2-A: Secure the completed RACGO and RACIO instruments from the first section of this mini-module. Review the ratings of the general objectives (goals) and the instructional

objectives to determine the major flaws in these portions of the sample curriculum (Appendix A) and how these deficiencies affect other portions of the sample curriculum as written.

AND

Task 1.3.3.2-B: Author and type (or have typed) a one page maximum length memorandum to Mr. Ollie Smooth, Chairperson of the vocational curriculum writing committee that prepared the sample curriculum "The Oil Industry" appearing as Appendix A. The completed memo is to be typed on 8-1/2 x 11 white bond paper and is to conform to the business letter form standards. The contents of the memo should clearly state what needs to be redone by the curriculum committee, when, and how Mr. Ollie Smooth is to resubmit it to the school's curriculum coordinator.

SELF-EVALUATION: Have you authored and had typed an original memo as per the tasks from above? You did! Well, good! Please turn it in for checking and move on.

Although it is unlikely that you need much help in completing this task, perhaps some one part of it is unclear that may be clarified by a rereading of the task statements. When done, turn the memo in and go to the next task.

TASK 1.3.3.3: Given a sample vocational curriculum and an evaluation instrument, the learner will evaluate, and approve the curriculum and report same in an original summary typed on one 4 x 6 index card.

Task 1.3.3.3-A: Locate the sample curriculum titled "The Oil Industry" which is Appendix A. Then locate Appendix B in this minimodule which is titled: "A Career Education Evaluation Instrument and its directions."

AND

Task 1.3.3.3-B: Evaluate "The Oil Industry" curriculum by using the assessment instrument in Appendix B in its entirety. Respond

to all six (6) tasks and all the subtasks contained in the instrument. Complete the curriculum evaluation instrument in ink, not pencil, and put your name and the date on the first page in the spaces provided. Do not change the weights of the subtasks of step number 2.0.

AND

Task 1.3.3.3-C: Assume that your evaluation of the sample curriculum "The Oil Industry" was not exited at either rejection point on the instrument and, thus, it meets the minimum score necessary for curriculum approval. You are to write an original summary of the curriculum, its identification, and thoughts on its strengths and weaknesses. Assume that this evaluation summary is required of all curricula developed in your state through vocational funding projects. The completed curriculum evaluation summary is to be typed on one 4 x 6 index card; both sides may be utilized if necessary. See the last paragraph on page 25 of Appendix B for details of this requirement.

SELF-EVALUATION: Have you completed the evaluation of "The Oil Industry" curriculum using the evaluation instrument in Appendix B? Have you written and typed a 4 x 6 index card containing your evaluation summary? If you have done these tasks, turn them in for checking. If you haven't done these tasks as requested, do so, then turn them in for evaluation.

STOP! STOP! STOP!

You have now completed all the learning number 1.3 -- Coordinating Vocational Curriculum Development. This has been a long series of activities and tasks. You should be congratulated on your completion of this mini-module. Recall that the first module in this series -- No. 1.1 -- was titled: Planning for Vocational Curriculum Development and that the second module -- No. 1.2 -- was titled: Organizing for Vocational Curriculum Development. Now with Coordinating Vocational Curriculum Development done, you are ready to proceed into the implementation and evaluation of vocational curriculum development.

Mini-Module 1.3 Posttest

Module Performance Record Chart

Name: _____ Date Begun: _____

Evaluation Mark Key: M = Mastery, R = Recycle

Learning Activity	Task Number	Evaluation mark	Evaluator's Initials	Comments
DIRECTING 1.3.1	1.3.1.1			
	1.3.1.2			
	1.3.1.3			
	1.3.1.4			
	1.3.1.5			
ASSESSING 1.3.2	1.3.2.1			
	1.3.2.2			
	1.3.2.3			
	1.3.2.4			
CONTROL-LING 1.3.3	1.3.3.1			
	1.3.3.2			
	1.3.3.3			

Form Designed By: M. L. Meehan, 10-76

Appendix A

The Sample Curriculum:

THE OIL INDUSTRY

State of New Jersey
Department of Education
Division of Vocational Education

A JUNIOR HIGH SCHOOL MULTI-DISCIPLINE, MULTI-CLUSTER CAREER EDUCATION CURRICULUM

Prepared by:

Bernard Novick

Vocational-Technical Curriculum Laboratory
Rutgers - The State University
Building 4103 - Kilmer Campus
New Brunswick, New Jersey

October 1975
Publication #0010

INTRODUCTION

This curriculum outline emphasizes three of the major industries in Woodbridge Township, New Jersey; the oil industry, retail trade and clothing, and electronics manufacturing. Within each are units emphasizing the location and development of raw materials, the manufacturing process, the transportation of goods, and the distribution and sale of the final product.

All objectives within a single unit are numbered consecutively. This fact emphasizes that all objectives within that unit regardless of subject emphases are inter-related and must be seen as a correlated whole. Suggested activities for each objective are numbered in relationship to objectives they support. Evaluation procedures similarly are tied to objectives.

We as a team, hope that this experience will serve as a valid model for other communities to derive their own inter-disciplinary approach to career education curricula.

THE COMMITTEE:

Joseph Agresta

Suzanne Hollander

Sara Kelly

Bernard Novick

Gloria Portano

Theodore Tylicki

AREA OF COMMUNITY EMPHASIS OIL

GOAL #1 TO UNDERSTAND THE LOCATION AND ORIGIN OF

OUTCOME	SUGGESTED ACTIVITIES
SCIENCE	
1. Given the geological information of several sites, the student should be able to identify which of the areas would be the probable location of an oil deposit.	1.1 The student will investigate by reading and class discussion geological conditions and formations that are probable areas for oil deposits. 1.2 Give the student three geographic locations and the geological conditions and formations found there. 1.3 Have the student discuss the location at which oil will most likely be found. 1.4 Have the student study geological reason for drilling an exploratory well at the location of his choice.

CAREER EDUCATION CURRICULA

INDUSTRY — GRADE LEVEL 7, 8 and 9

OIL DEPOSITS

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
1.a Give the student a geological map and indicate which areas have a probability of oil. Have student list the geological conditions which led to that conclusion.	1.1 Reference Text 1.2 Data supplied by the American Petroleum Institute 1.3 Data packets of various geological formations 1.4 Cassette Tape: The Search for Oil, No. 2821 Center for Cassette Studies 8110 WEBB Ave North Hollywood, Cal. 91605 1.5 Information supplied by the Shell Oil Company.

MULTI-DISCIPLINE, MULTI-CLUSTER

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE LOCATION AND ORIGIN OF

OUTCOME	SUGGESTED ACTIVITIES
SOCIAL STUDIES	
2. Student should be able to identify several occupations connected with the discovery of oil as well as list the working conditions for these occupations.	2.1 Student will discuss with teacher the various occupations and working conditions connected with oil discovery in a classroom discussion lesson.
3. Given a map of the world, student should be able to recognize all continents, oceans, major seas, countries and other major geographic and man-made elements.	3.1 Discuss with the student the seven continents and have the students locate them on the map.
4. Students should be able to establish and recognize weather zones, time belts and longitude and latitude.	4.1 Define longitude and latitude, equator, Prime Meridian, time belts. 4.2 Locate each on a globe or map. 4.3 Practice location of certain places by giving sets of longitude and latitude numbers only.

CAREER EDUCATION CURRICULA

INDUSTRY — GRADE LEVEL 7, 8 and 9

OIL DEPOSITS

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
2.a Have the student list as many occuptions as possible dealing with the field ano describe the working conditions of each.	2.1 Information on jobs in oil discovery from a. Geologists b. Drillers c. Rig constructionists d. Rig operators e. Chemical scientists
3.a Locate accurately on a blank map those countries researched. List same countries and similarities on a common chart.	3.1 World Map 3.2 Atlases 3.3 Globes 3.4 Graph Paper 3.5 Rulers 3.6 Texts on Canals; Erie, Suez, Panama 3.7 Biographies: Goethals, Gompers, T. Roosevelt, Gaillard, Gorgas
4.a Locate properly twenty given names of places by using only longitude and latitude. 4.b Using a map or Atlas, locate and determine twenty five longitudes and latitudes by using names given by instructor. 4.c Be able to identify the time zones and climate zones of the fifty names in the exercise above. (Use 12:00 as the starting time, New York time)	4.1 Atlas 4.2 Globe 4.3 Latitude and longitude film loop (Earling) 4.4 Latitude and longitude filmstrips

MULTI DISCIPLINE, MULTI-CLUSTER

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE LOCATION AND ORIGIN OF

OUTCOME	SUGGESTED ACTIVITIES
SOCIAL STUDIES AND BUSINESS	
5. The student should be able to identify jobs related to geography and the oil industry.	5.1 Have student investigate occupations in which the knowledge of geography is basic skill such as navigator, surveyor, map maker and meterologist.
ENGLISH	
6. Given a list of vocabulary terms students should be able to identify and spell correctly.	6.1 Play Match Game 74 from T.V. series using list of words.
7a. Student should be able to understand how author's influence discovery and predict blueprints of the future.	7.1 Read "The Man Who Invented the Future" and "Journey to the Center of the Earth" and "Open Highway."
7b. Student should become familiar with the oil industry as an introduction to the unit.	7.2 Discuss relationship to oil. Read pamphelt "The Story of Oil" by Shell Oil Company.

INDUSTRY GRADE LEVEL 7, 8 and 9

OIL DEPOSITS

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
5.a From a list of occupations, the student should be able to select those occupations in which geography is a basic skill.	5.1 Occupational Outlook Handbook 5.2 Dictionary of Occupational Titles
ENGLISH	
6.a From a scrambled word list, student will insert correct spelling and then identify each.	6.1 List of vocabulary terms related to Oil Discoveries
7.a Students will write a paragraph showing how literature can lead to the discovery and location of inventions.	7.1 Open Highway. Scott Foresman. 7.2 Phamphlet "The Story of Oil", Shell Oil Co.

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE LOCATION AND ORIGIN OF

OUTCOME	SUGGESTED ACTIVITIES
MATH	
8. Given a products map of the world, student should be able to locate areas where raw materials are found and graph annual production of oil successfully.	8.1 Research countries where oil is available in large quantities. Discuss similarities of these countries. Gain a knowledge of quantity of oil in these countries.
9. Given a time in two cities in different time belts, students should be able to compute the time difference between them.	9.1 List the time at two cities. Addition and subtraction problems using hours, minutes, seconds, including problems where conversion is necessary.
10. Given longitude and latitude, student should be able to compute degrees, minutes, seconds between any two given cities.	10.1 Listing longitudes for one country. Subtraction problems finding distances between two cities using longitude (degrees, minutes, seconds). Include conversion problems. Graph on number line.

INDUSTRY GRADE LEVEL 7, 8 and 9

OIL DEPOSITS

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
8.a Given graph paper, the student will chart and plot the annual production of oil producing countries successfully.	8.1 Graph Paper
9.a Given 12:30 p.m. New York time as a starting time, and a list of twenty five cities, determine the correct time in each city in hours, minutes and seconds.	
9.b Given an atlas, and a list of ten major cities throughout the world, determine the distance of each from New York City in degrees minutes, seconds. (Using longitude)	10.1 Filmloop/Filmstrip on Longitude and Latitude. 10.2 Graph Paper 10.3 Atlas
10.a Given a number line, graph location of each city.	
10.b Given an atlas and a list of ten major cities throughout the world, determine the distance of each from New York City in degrees, minutes and seconds. (Using latitude). Given a number line, graph location of each city.	

AREA OF COMMUNITY EMPHASIS OIL

GOAL #2 TO UNDERSTAND THE MANUFACTURING AND PROCESSING OF

OUTCOME	SUGGESTED ACTIVITIES
SOCIAL STUDIES	
1. The student should be able to describe the evolution of manufacturing from primitive man through today's modern space age.	1.1 Build model (using clays, wood and other media) of examples of the evolution of items in farming, transportation, etc., from early man to the 1970's.
2. The students should be able to identify the changes that took place from primitive ages to the present.	2.1 Produce a particular object, select materials to use, methods to produce and process, and present report on production of that product.
3. The students should be able to cite examples of manufacturing in each era.	3.1 In class discussion, review periods of history in terms of evolution of manufacturing: a. Primitive Age (Ice Age) b. Early Civilizations (Rome, Greece, Egypt, Mesopotamia) c. Middle Ages d. Renaissance e. Industrial Revolution f. Space Age
BUSINESS	
4. The student should be able to describe the different job patterns and occupational developments from the early craftsmen to the assembly line worker.	4.1 [illegible]ce the development and history of textile machines, farm machines, trains, boats, and planes relating to business occupations.
5. The student should be able to relate inventors with their invention and its impact on civilization.	5.1 Write compositions or descriptions about hypothetical situations resulting from the loss of such items as wheels, printing press and others. 5.2 Read biographies of famous inventors. 5.3 The student describes the various occupations from the early craftsman to the assembly worker.

CAREER EDUCATION CURRICULA

INDUSTRY CRUDE OIL GRADE LEVEL

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
1.a Models should have at least three stages of development in an area of manufacturing.	1.1 Clay, wood, crayons, paper, glue
2.a The production process must be done for two different periods in history.	2.2 Filmstrips on the Industrial Revolution and Middle Ages.
3.a Describe two characteristics of the manufacturing process for each historic period.	5.1 A list of Biographies on inventors should be developed from available books in the school library.
3.b Correctly match characteristics of manufacturers with periods in history.	
4.a Name three jobs, at each stage of development	
5.a Give the student the name of at least three inventors, describe their inventions and give, at least two ways in which civilization benefited.	5.2 Biographies from school library.
6.a The student is asked to define the specific terms and processes of oil refining.	6.1 Field trip to refinery.

AREA OF COMMUNITY EMPHASIS _____

GOAL _____

OUTCOME	SUGGESTED ACTIVITIES
SCIENCE	
6. The student should be able to explain why curde oil cannot be used in the form in which it comes from the earth.	6.1 Class discussion on the processes of refining oil: a. distilling d. polmerization b. cracking e. use of catalysts c. thermal cracking

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE MANUFACTURING AND PROCESSING OF

OUTCOME	SUGGESTED ACTIVITIES
7. The student should be able to describe the basic refining techniques in oil manufacturing.	7.1 Teacher demonstration of a fractional distillation column. 7.2 Student oriented lab experience using catalysts to break up large molecules. 7.3 Show a film or take a field trip to a refinery.
8. The student should be able to identify at least five occupational skills required in the refining of oil.	8.1 Speaker from a local refinery and/or American Petroleum. Institue (Topic: Occupations in oil refining.) 8.2 Show a film or take a field trip to a refinery.
9. The student should recognize the fact that oil does not wear out in use by explaining how contaminated oil can be recycled by the processes of filtration, magnetic, purification and/or separation.	9.1 Give the student three contaminated samples of oil: a) contaminated with dirt: b) contaminated with iron filings: c) contamiated with water. 9.2 Sample one is filtered through a filter column of cheese cloth, sand and gravel. Sample two is purified by passing a magnet through it. Sample three is placed in a separation funnel and the various layers are in siphoned off.
10.1 The student should be able to describe the occupations dealing with the reprocessing of contaminated oil.	10.1 Research various occupations and skills required for the reprocessing of oil.
11. Given a set of research projects, the student should be able to identify them as either applied research or pure research.	11.1 Have the student identify the terms applied research and pure research. 11.2 Have the students identify the difference between applied and pure research.

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
7.a The student is asked to write and submit a laboratory report on the completion of the laboratory experiment.	7.1 Test tubes, Bunsen Burners, extraction column, safety eye glasses. Chemicals, gloves, matches, crude oil, fire proof containers Suggested Reference Text: Earth Science Globe Publishing Co.
8.a The student is asked to select disirable occupation from a list of occupational skills required by workers in an oil refinery.	8.1 Speakers from oil industry. Cassette Programs, Arlington, Virginia Tape Set 4586 Petroleum Operations, Part I & II
9.a The student should be able to demonstrate and explain how various contaminated oil samples can be recycled for use.	9.1 Oil Samples 9.2 Filter column 9.3 Cheese cloth 9.4 Sand 9.5 Gravel 9.6 Magnet 9.7 Separating Funnel
10.a Have the students match occupations involved in the reprocessing of oil with specific skills required for that occupation.	
11.a From a list of research projects have the student indicate which are pure and which are applied research.	10.1 Reference Texts 10.2 Speakers from oil company's research section
12.a Have the student write an essay and explain the need for both types of research in a corporation.	10.3 Field trip to a research center such as Exon Research Center. Newspaper Want-Ad Section. Various reference texts.

AREA OF COMMUNITY EMPHASIS _____

GOAL _____

OUTCOME	SUGGESTED ACTIVITIES
12. The student should be able to discuss the necessity for both types of research.	12.1 Have speakers involved in both types of research explain their functions and primary objectives.

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE MANUFACTURING AND PROCESSING OF

OUTCOME	SUGGESTED ACTIVITIES
	12.2 On a field trip to an oil company research center, have the students construct a list of the pure research projects and applied research projects they observe.
ENGLISH/BUSINESS	
13. The student should be able to identify various occupations and various skills related to research.	13.1 Provide students with the Classified Section of the local newspaper. The student will select all occupations in research designating those in oil as opposed to other occupations.
14. Given a set of petroleum operations and job types, the student should be able to identify them as belonging to either the exploration, extracting, refining, or delivery phase of oil production. And the job skills needed for each.	14.1 The student will research the various phases of oil production. 14.2 The student will construct three dimensional models and/or charts displaying each of the four phases of oil production. 14.3 The student will identify the various job types in each phase of oil production. 14.4 The student will obtain and display samples of petroleum in each phase of production.

MULTI-DISCIPLINE, MULTI-CLUSTER

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE MANUFACTURING AND PROCESSING OF

OUTCOME	SUGGESTED ACTIVITIES
MATH	
15. Given a list of whole numbers and rational numbers, students should be able to add and subtract whole numbers, multiply rational numbers and compute using grouping symbols.	15.1 Practice addition and subtraction of whole numbers. 15.2 Using examples from oil manufacturing processes, practice multiplication of rational numbers. 15.3 With examples from oil refining processes, practice problems using grouping symbols.

AREA OF COMMUNITY EMPHASIS _____

GOAL _____

OUTCOME	SUGGESTED ACTIVITIES
16. Given a list of temperatures, student should be able to read temperature in degrees Celsius and degrees Fahrenheit and perform conversions.	16.1 Student will use both types of thermometers to record temperatures in different areas and use formulas.

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE MANUFACTURING AND PROCESSING OF

OUTCOME	SUGGESTED ACTIVITIES
	16.1 continued a. $F^{o} = C^{o} \times 9/6 + 32$ to change Celsius to Fahrenheit b. $C^{o} = (F^{0} - 32) \times \frac{5}{9}$ to change Fahreheit to Celsius
17. Given annual production data, the student should be able to compare in terms of percent of increase and decrease.	17.1 Conversion of figures into percentages. 17.2 Rounding off numbers. 17.3 Plotting points on graph paper. 17.4 Construction and interpretation of bar, line and pie graph (in each case examples from problem in science class will be used).
18. Given a wooden cube and sets of woodent cubes, student should be able to determine weight.	18.1 Using cent-o-gram scale, determine weight of a wooden cube and combination of cubes. Attempt to approximate weight of a determined number of metal discs, then check approximation on cent-o-gram scale.
19. Given break down of crude oil, student should be able to compute fractional and percentage part each is of whole.	19.1 Define distilling: Separating crude oil into fractions: gases, gasoline, derosine and oils of different weights. 19.2 Given the break-down of distilling for 100 gallons of crude oil, discuss what fractional part of the whole each is. 19.3 Conversion of fraction into percentages.
20. Given the above information, student should be able to graph information.	20.1 Bar and line graphs to illustrate.

CAREER EDUCATION CURRICULA

INDUSTRY _____ GRADE LEVEL _____

CRUDE OIL

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
16.b Construct a thermometer: a. (Fahrenheit) with freezing and boiling point of water labeled. b. (Celsius) with freezing and boiling point of water labeled.	
17.a Accurately chart a bar graph from given data.	
17.b Accurately plot a line graph from given data.	
17.c Accurately construct a pie graph using percentages.	
18.a Student will be able to determine the exact weight of each of five sets of items.	18.1 Cent-o-gram scale
18.b Student will be able to approximate within 5 grams the weight of an item.	18.2 Wooden cubes
	19.1 Distilling figures from major oil refinery
	20.1 Graph paper
	20.2 Rulers
	20.3 Colored pencils
19.a Given breakdown of distilling for 50 gallons of crude oil, the student will be able to determine what fractional part of the whole each element represents; then determine the percentage of the whole each element represents.	

GRADE LEVEL

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
20.a Student will be able to construct a bar graph illustrating both fractional and percentage figures.	
20.b Student will be able to construct a line graph illustrating both the fractional and percentage figures.	

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE MANUFACTURING AND PROCESSING OF

OUTCOME	SUGGESTED ACTIVITIES
ENGLISH	
21. Having read a biography of a manufacturing personality, student should be able to: a. suggest traits of persons which enable him to relate to others on the job, in the family and in society. b. Identify any traits which student may have that are the same as biographical sketch studied. c. Identify preparation and skills of person which aided him in his position.	21.1 Reading of biography. Discussion of traits and skills which help people in relationships with colleagues. 21. 2 Role playing suggested situations in job, family and society.

CAREER EDUCATION CURRICULA

INDUSTRY _____ GRADE LEVEL _____

CRUDE OIL

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
21.a Student will be able to write a paragraph showing how individial studied related to others as identified in book.	21.1 List of biographies for students' choices.
21.b Student will compare and contrast her/himself with biographical person in paragraph form.	21.2 Study guide to aid student in what to look for as biography is read.

MULTI-DISCIPLINE, MULTI-CLUSTER

AREA OF COMMUNITY EMPHASIS OIL

GOAL #3 TO UNDERSTAND THE TRANSPORTATION AND STORAGE

OUTCOME	SUGGESTED ACTIVITIES
SOCIAL STUDIES	
1. Students should be able to trace shortest routes for shipment of oil by water from Mid-East to various ports of U.S., Europe and South America.	1.1 Give the student a map and have him plot the major shipping lanes from the Mid-East to ports in North America, South America, Europe and Asia.
2. Students should be able to describe the history of Suez and Panama Canals.	2.1 Study history and background of canals in world transportation. 2.2 Discussion of recent oil stoppage and closing and blockading of Suez Canal and effect on U.S. and other areas of the world.
ENGLISH	
3. The students should be able to relate five methods of transportation to the oil industry.	3.1 Read unit on Transportation in Open Highway 7. Do activities. 3.2 Discussion relating to oil industry.
SCIENCE	
4. The student should be able to describe the most efficient ways to ship oil from its sources to the refinery and identify some occupations dealing with the transportation of oil, and be able to identify skills required in the process.	4.1 Read material on the transportation of oil. 4.2 Read about the considerations necessary for the efficient flow of crude oil to the refinery.
5. The student should be able to recognize the Ecological considerations necessary for safe transportation of crude oil.	5.1 Research the ecological considerations in the Transportation of crude oil by boat, pipe line, overland transportation, etc. 5.2 Speaker and/or film on oil and the environment. 5.3 Discuss the ecological considerations of the environmentalist and the need for efficient transportation of oil.

CAREER EDUCATION CURRICULA

INDUSTRY GRADE LEVEL

OF CRUDE OIL

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
1.a Given several oil deposit locations the student plots on map the best means of transportation to refiner in North America, Europe, South America, and Asia.	1.1 Graph paper 1.2 Rulers 1.3 Pencils 1.4 Erasers
2.a Student should give at least two (2) reasons for selecting those routes.	2.1 Back issues of U.S. News and World Report, Newsweek, and Time.
3.a Write a paragraph comparing and constrasting transportation in two stories, giving examples from the oil industry.	3.1 Open Highways 7. Scott-Foresman.
4.a Have the student list and describe the basic means of transporting crude oil.	4.1 Reference and resource materials on oil transportation.
4.b Describe at least 10 occupations involved with each means of transportation.	4.2 Material on transportation from Ohio.
5.a The student should list Ecological considerations for each form of crude oil transportation.	5.1 Information from air and weather pollution.
5.b The student should state an opinion on the Ecological considerations and need for effiecient methods for the transportation of crude oil and give valid reasons for his/her opinion. The student is graded on the number and quality of the reasons since it is possible to have various opinions.	5.2 Films and speakers from: a. Sierra Club b. American Petroleum Institute 5.3 Cassette Tape: Breathing Room 20982 Cassette Tape: Take a Deep Breath 20943 Cassette Tape: Dangers of Pollution 9870 Center for Cassette Studies 8110 Webb Ave, North Hollywood, Cal. Filmstrip Series: Energy: Here Today-Gone Tomorrow? X524 Eye Gate House, 146-01 Archer Ave., Jamaica, NY

MULTI-DISCIPLINE, MULTI-CLUSTER

AREA OF COMMUNITY EMPHASIS OIL

GOAL #4 TO UNDERSTAND THE BASIC BUSINESS OPERATIONS OF

OUTCOME	SUGGESTED ACTIVITIES
BUSINESS AND MATH	
1. Given a contract negotiating situation student should be able to research informantion necessary for contract.	1.1 Have students separate into two groups--labor and management -- to discuss contract negotiations.
	1.2 Management group should compute cost of manufacturing product by using approximate estimate, bidding (material, labor, equipment, costs), unit prices, and overhead. They will then discuss and agree on a profit and suomit entire cost of operation.
	1.3 Labor group will compute a budget for a family of four using National Consumer Finance Kit.
	1.4 Both groups will contribute ideas toward forming a contract using salary, safety insurance, sick leave and vacation time.
	1.5 Groups will exchange places, management becoming labor, and labor becoming management and begin again.
2. Given a pre-determined amount of money and a list of certain corporations, students should decide which corporation or corporations, in which they would like to invest.	2.1 Given a list of corporations from AMEX (NY Times) define headings and meanings of abbreviations on stock market.
	2.2 Given this information and a predetermined amount of money, students will pick a corporation in which to invest.
	2.3 Using the Times, students will chart changes using a number line.

CAREER EDUCATION CURRICULA

INDUSTRY GRADE LEVEL 7,8,9

THE OIL INDUSTRY

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
1.a Given a plan and list of figures students should be able to compute. a. Material needed by determining number of times item appears on plan. b. Labor cost by determining amount of hours needed by each worker to complete job X hourly rate. c. Hourly equipment cost, by determining cost of equipment or rental and fuel and repairs and transportation cost, or (hourly cost + depreciation cost + investment cost + taxes + investment cost + taxes + insurance) divided by hours worked equals hourly cost and then submit a bid.	1.1 graph paper 1.2 plan 1.3 National Consumer Finance Assoc. (Teacher's Kit) Suite 702 1000 16th St. NW Washington, D.C. 20036
1.b Given a monthly take-home pay, student should be able to compute a budget for a family of four showing amount needed for food, house operation, clothing, savings and investment.	
2.a After two week period, student will successfully: a) Submit a detailed report on amount of money invested, showing net gain or loss. b) Submit a bar graph illustrating the daily change over the 14-day period.	2.1 Filmstrip: The Financial Marketplace (Eyegate) 2.2 Field trip to NY Stock Exchange 2.3 Ruler, Graph Paper 2.4 NY Times, subscription to Wall St. Journal 2.5 Speaker from a brokerage house

MULTI-DISCIPLINE, MULTI-CLUSTER

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE BASIC OPERATIONS OF THE

OUTCOME	SUGGESTED ACTIVITIES
	2.4 Given the Wall Street Journal, the student will choose a stock and invest a pre-determined amount of money. Each student will follow the progress of his stock over a two week period in the Wall Street Journal.
3. The student should be able to identify and describe orally and/or in writing the computational skills required by the various jobs and how they are acquired.	3.1 Students will research and discuss job opportunities in the stock market field.

CAREER EDUCATION CURRICULA

INDUSTRY GRADE LEVEL 7,8,9

OIL INDUSTRY

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
3.a List five job opportunities in the stock market field. Compare and contrast in terms of education needed, particular characteristics, specific work done.	

MULTI-DISCIPLINE, MULTI-CLUSTER

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE BASIC BUSINESS OPERATIONS OF THE

OUTCOME	SUGGESTED ACTIVITIES
BUSINESS	
4. Student should be able to type and file the data supplied by the math and social studies depts, into statistical tables and reports.	4.1 Using math and social studies data, students will prepare letters and reports in correct typewritten form.
5. The student should be able to detect errors and correct data in the preparation of reports.	5.1 Issue and update credit cards, collection, checking customer billing against price lists. Prepare statements, process payments, analize sales records and report delinquent accounts to the credit department.
	5.2 Prepare reports to management for use in development of more efficient manufacturing methods for scheduling, routing and compiling of production.

INDUSTRY GRADE LEVEL 7,8,9

OIL INDUSTRY

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
4.a Give information compiled in final form for submission to superior (without proofreading and retyping errors). File copy of report.	4.1 Typewriter 4.2 Typing paper, eraser 4.3 Filing cabinet, folders 4.4 Films-filing-IBM 4.5 Filmstrips & Cassette-Eye Gate 4.6 Filming, & Basic Office Systems
5.a Given a sales record and delinquent account report, students will be able to prepare statements, process payment, and analyze record for the credit department.	5.1 Paper, carbon, typewriter 5.2 Eraser, blank legal 5.3 forms applicable to formation of a corporation
5.b After obtaining information from the production department, the student should be able to compile the reports necessary for management.	5.4 Ledger paper

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE BASIC BUSINESS OPERATIONS OF THE

OUTCOME	SUGGESTED ACTIVITIES
SOCIAL STUDIES	
6. The student should be able to define specific terms of economics; e.g; boom, panic, recession, depression, monopolies and those connected with unionism and collective bargaining.	6.1 Research definitions on economic phases of history. Trace the economic history of the U.S. indicating various economic situations as mentioned in "Outcomes". Set up planned interview for a job. Have pupils act out interviewer, applicant, review board, foreman.
7. Student should be able to describe and match contributions of people in area of reforms movements.	7.1 Review terms connected with unionism (open, closed, and union shop). Review federal laws dealing with collective bargaining: National Labor Relations Act, Wage & Hour Act, Social Security, Wagner-Taft/ Hartley & others. 7.2 Research roles of reformers in areas of child labor, women workers, wages, hours, etc. 7.3 Select an area in the modern world where the student feels there is a need for reform. Have student suggest methods of bringing this reform about. Students could express conrary opinions via debate.

INDUSTAY GRADE LEVEL 7,8,9.

OIL INDUSTRY

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
6.a Give the student specific economic terms and have them recall the definition of each.	
7.a Have students match the individual with the reform movement. 7.b Write an essay analyzing a reform movement and describe at least two results of its action.	7.1 Bibliographies or Biographies: a. Dorothea Dix b. Clara Barton c. Francis Willard d. Susan B. Anthony e. Elizabeth Stanton f. Jacob Riis

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE BASIC BUSINESS OPERATIONS OF THE

OUTCOME	SUGGESTED ACTIVITIES
SOCIAL STUDIES/BUSINESS	
8. Given a set of facts concerning a product, student should be able to identify knowledge needed to form a corporation and eventually portray a working model in its formation.	8.1 Have students select by vote three members to serve as incorporators. Have these three select and appoint a chairperson.
	8.2 Use students as governor of State, Sevretary of State, head of corporation's board of directors, investors, stockholders, etc.
	8.3 Go through process of getting a charter.
	8.4 Act out formation of corporation, selecting of a product, setting up the address, issuing of stock certificates, dividends, and drawing up by-laws.
	8.5 Weekly stock summaries.
9. The Student should be able to identify and analyze various occupations connected with selling and buying stock.	9.1 Field Trip to Wall Street and local brokerage house.
	9.2 Speakers on occupational opportunities in the stock field.

CAREER EDUCATION CURRICULA

INDUSTRY: OIL INDUSTRY

GRADE LEVEL: 7,8,9

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
8.a Successful knowledge of definitions dealing with corporations and stock markets.	9.1 Field trip to N.Y. Stock Exchange & Local Broker.
8.b Successful charting of Daily & Weekly stock summaries from Wall St. Journal or other resource paper.	9.2 Speaker from Large Corporation 9.3 Visit to Sec. Of State's office.
8.c Successful participation as volunteers for group work.	9.4 Charts & Graphs 9.5 Paper subscriptions to Wall ST?
8.d Oral question-answer period dealing with materials presented in class.	9.6 Journal or N.Y. Times.
9.a Oral question-answer period dealing with materials presented in class.	

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE BASIC BUSINESS OPERATIONS OF THE

OUTCOME	SUGGESTED ACTIVITIES
10. Given a set of terms student should be able to work out a successful contract by being able to understand "the self" in: a. listening to others b. accepting and giving criticism c. following rules d. contributing ideas e. observing actions of others f. handling interruptions g. developing good behavior h. keeping to the task i. working with a group.	10.1 Assign members of the class different titles, e.g. union president, plant manager, arbitrator bargaining agents, mediators, etc. 10.2 Have each group work out contract negotiations for settlement of a new pact for the workers. 10.3 Include actual over the table discussions of the provisions of the contract, a union meeting or board of directors meeting.
11. Student should be able to successfully describe working conditions, wages, practices, hours, and other employee/employer problems resulting from growth of industrialization in U.S.	11.1 Research conditions of labor in the U.S. from 1800 to present. Include government legislation passed since the 1800's to the 1970's.
ENGLISH	
12. Given a collective bargaining situation, student should arrive at a solution using the appropriate debating procedures and should be able to research for arguments in debate.	12.1 Study rules of debating. 12.2 Assign certain assumptions to be debated by company and union; parts taken by students. Student acting as Federal Mediator will summarize arguments of both sides and have class vote on a solution. 12.3 Library period for research.
13. Given a short story, student should be able to name elements of conflict.	13.1 Read short story with conflict of man against man. Discuss other elements of conflict.
ENGLISH/BUSINESS	
14. Given a certain corporation, students should be able to research and record data as required.	14.1 Class will decide what data is wanted for each corporation and which corporations to research. 14.2 Write letters to corporations requesting reports.

INDUSTRY _____ GRADE LEVEL _____

OIL INDUSTRY

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
10.a Successful participation on panel work as a member of one of the negoiating teams.	12.1 Table for negotiation,
10.b Submission of research notes taken in order to arrive at a proper contract.	
10.c The teacher and student rate the student's performance and arrive at an evaluation of the student's performance.	
11.a Successful knowledge of definitions connected with labor and its history; e.g. CIO, AFL, John L. Lewis, Gompers, strikes, pickets, teamsters, etc.	12.2 Texts, library encyclopedias, Federal laws.
11.b Student is given the law and must recall their subject matter.	
12.a Students will complete a bargainning situation by voting a solution based on presentation of debate.	12.3 Rules for debating intext or copies Library.
13.a Students will be able to select elements of conflict in given story and relate to labor relations.	13.1 Anthology or one short story in text.
14.a On appropriate forms, students will record data retrieved on corporations.	14.1 Annual reports of corporations. 14.2 N.Y. Times or Wall Street Journal. 14.3 "Venture" Game from Proctor and Gamble

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND THE BASIC BUSINESS OPERATIONS OF THE

OUTCOME	SUGGESTED ACTIVITIES
15. The student should be able to name all the occupations found in the game "Venture".	15.1 Play "Venture" (a business game).
16. Given results of meeting between labor and Management student should be able to prepare information in report form for submission of union approval.	16.1 Given a previous contract, students should follow format inserting appropriate information.
17. The student should be able to apply written and oral communication skills.	17.1 Letters of application to state for information on corporation. Completion of legal forms in conjunction with lawyer.
18. Student should be able to compile data in acceptable, typed report form (without footnotes).	18.1 List of terms in oil industry from Story of Petroleum. Spelling of terms.
	18.2 Paragraphing topic sentences.
	18.3 Sentence Structure.
	18.4 Capitalization.
	18.5 Punctuation.
	18.6 Correct form of reports.
	18.7 Outlines.

CAREER EDUCATION CURRICULA

INDUSTRY GRADE LEVEL

OIL INDUSTRY

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
16.a Newly drawn contract submitted for approval by labor and management.	16.1 Contract form data supplied by Labor and Management
17.a Student will be able to locate addressee, compose and type an acceptable letter of application.	16.2 Chamber of Commerce Lists
17.b Given a blank legal form, student will be able to fill in information needed.	
18.a Given information, student will write an accurate, concise, grammatically correct report.	18.1 Story of Petroleum 18.2 Information and data from other departments.

AREA OF COMMUNITY EMPHASIS OIL

GOAL #5 TO UNDERSTAND MARKETING AND DISTRIBUTION OF GAS

OUTCOME	SUGGESTED ACTIVITIES
MATH	
1. The student should be able to determine the quantity of oil to be sent to states based on data given.	1.1 Compute by gallons quantity of oil to be sent out per quarter.
	1.2 Using returns from first quarter, revise quantities to be sent out next shipment.
2. Given a road map, student should be able to:	2.1 Instruct students on how to use a road map.
a) determine distance between two given points for at least three alternate routes;	2.2 Explain symbols used on map.
	2.3 Compute distances between two cities using map.
b) determine which of the alternate routes is best suited for transportation of manufactured materials (primary roads, secondary roads, thruways, toll highways) in the shortest time period.	2.4 Using miles per hour for state, county and local highways, from State Department of Transportation, compute time needed to travel between two points.
c) determine the cost of transportation.	2.5 Survey truck stops to find rental costs of tandems and costs of diesel fuel. Using text figures, compute average rental prices and average cost per gallon of fuel.
3. Given train schedule and bus schedules, students should be able to read and select times of arrival and departure of given train and bus.	3.1 Plan a schedule of arrival and departure of persons or products via selected forms of transportation and relate to products of industry.
4. Student should be able to construct a workable budget, decide on the amount of materials necessary to begin a business, determine amount of loan and interest necessary, and figure labor costs.	4.1 Discuss amount of money necessary to establish business (property and business).
	4.2 Discuss amount of stock necessary to begin a business using unit price.

CAREER EDUCATION CURRICULA

INDUSTRY GRADE LEVEL 7, 8 and 9

THROUGH SERVICE STATIONS

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
1.a Use feedback from states on quarterly reports to compute accuracy of quantities shipped during first quarter.	1.1 Ledger paper 1.2 Calculators
2.a Given a road map, student will be able to determine the distance in miles between two points using two alternate routes.	2.1 Road maps 2.2 Schedules of trains and buses 2.3 Use library books for research of methods of transportation 2.4 Speed limits from State Departments of Transportation
2.b Using information from State Department of Transportation, student will be able to determine the length of time necessary to travel from point to point for each route.	
2.c Given cost of truck rental, miles per gallon for diesel fuel, and figures computed above, student will compute cost of transportation for each route.	
3.a Students will submit planned itinerary and time schedule for shipping product to an assigned destination.	
4.a Given information from realtor, information from service station owner, listing number of items necessary to begin business, and cost per item, student will be able to determine total investment necessary.	4.1 ESP Birth of Business (Media Marketing Inc.) 4.2 Filmstrip: Focus on the small business owners (Eyegate) 4.3 Wholesale catalog of auto parts 4.4 Field trip to service station 4.5 Field trip to Bank 4.6 Monopoly and Careers
4.b Given information from bank officer, student will decide on type of loan, amount of down payment, and interest charged on loan.	

MULTIDISCIPLINE, MULTI-CLUSTER

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND MARKETING AND DISTRIBUTION OF GAS

OUTCOME	SUGGESTED ACTIVITIES
	4.3 Investigate bank loans and interest rates and determine budget. Decide on percentage of profit needed, compute labor costs.
	4.4 Play Monopoly and Careers.
	4.5 Speakers: realtor, service station owner, bank loan officer.
	4.6 Field trips to a service station, or bank.
5. Student should be able to list functions and duties of Personnel Technician or Job Analyst, such as: collect, analyze and develop occupational data concerning jobs and job qualifications; interview job applicants; evaluate people for special jobs; verifiy written reports and test data for possible qualifications; read and evaluate results.	5.1 Role play/match students with types of jobs.
	5.2 Discussion of types of jobs and requirements and duties.
	5.3 Research material for personnel requirements and duties.
	5.4 Interview classmates using file of want-ads for jobs.

INDUSTRY GRADE LEVEL 7, 8, and 9

THROUGH SERVICE STATIONS

	SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
4.c	Given the above information, student will compute a budget.	
4.d	Given information from service station owner, student will determine labor cost for a particular job.	
5.a	See objectives.	5.1 SRA Occupational Kit 5.2 Work 5.3 Library

MULTI-DISCIPLINE, MULTI-CLUSTER

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND MARKETING AND DISTRIBUTION OF GAS

OUTCOME	SUGGESTED ACTIVITIES
BUSINESS ENGLISH	
6. Student should be able to compose letters asking for information pertaining to census and amount of oil used in areas.	6.1 Discuss and listen to teacher. 6.2 Business letter writing, form, capitalization and punctuation.
7. Students should be able to show all parts of a business letter, envelopes, and return, self-addressed envelope to facilitate prompt rely. Typing and steno.	7.1 Typing practice of draft and final copy and envelope (proper format), folding of letter and inserting into envelope, enclosure notation.
8. Student should be able to identify areas of personal responsibility to society as well as to his employer in typical occupations.	8.1 Have students scan newspapers, magazines, books, television or radio programs for examples of conflicting business and professional ethics. 8.2 Panel discussion to hear complaints and views and render decisions.
9. Student should be able to identify rules, regulations, policies, and procedures that employers may require.	9.1 Role-play. One who follows regulations and one who doesn't.
10. Student should be able to differentiate between those jobs he enjoys and those he doesn't.	10.1 Discussion of: a) motives of why people work; b) opportunities that exist in many fields of work; c) a person can prepare himself for one or more occupations in which he is interested.
11. Student should be able to cite the effects jobs have on family relationships.	11.1 Read "The New Girl" and "The Smartest Boy in the Class", in Open Highways, Family Scholastic Unit Anthology, and do activities. 11.2 Report on articles in current magazines dealing with motives for work.

CAREER EDUCATION CURRICULA

INDUSTRY GRADE LEVEL 7, 8, and 9

THROUGH SERVICE STATIONS

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
6.a Student should write letters asking for needed information.	6.1 Names and addresses of needed bureaus and Chambers of Commerce.
7.a Student should type final draft and carbon copy, checking for any typing, spelling or capitalization errors. Also envelope and return envelope. File carbon for follow-up action.	7.1 Typewriters, carbon paper, typing paper, envelopes, erasers, stamps, calculators, math data.
8.a Given a conflict situation, student will define employer or employee in paragraph form indicating responsibilities, procedures, regulations, policies, etc.	8.1 News articles on consumer advocacy.
9.a Student will write a composition "Preparing for an Occupation and Obtaining a Job are one Side of Self-Development".	9.1 Open Highways. Scott-Foresman Magazines. and/or library period.
10.a Prepare a report on different family life patterns as held by families at different socio-economic levels.	9.2 Family Scholastic Unit Book, Work is Here to Stay, by Sar Levitans Olympic Publishing Co., Salt Lake City.

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND MARKETING AND DISTRIBUTION OF GAS

OUTCOME	SUGGESTED ACTIVITIES
1. Student should be able to identify those desirable personal qualities necessary for success in living and working with others.	12.1 Discuss concept of what success means. 12.2 Bring in news articles depicting success or failure among workers in various occupations. 12.3 Discuss mobility, how people move to get a better job or promotion in a company.
2. Student should be able to cite values of all types of jobs.	13.1 Read book, "Work Is Here to Stay". Guest speaker from employment agency or Personnel Office.

CAREER EDUCATION CURRICULA

INDUSTRY GRADE LEVEL 7, 8 and 9

THROUGH SERVICE STATIONS

	SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
1.a	Participation in discussion.	
2.a	Analysis presentation.	

MULTI-DISCIPLINE, MULTI-CLUSTER

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND MARKETING AND DISTRIBUTION OF GAS

OUTCOME	SUGGESTED ACTIVITIES
13. Given graphs and resource materials, student should be able to determine areas of United States where need for oil is greatest in terms of population and climate, and transportation systems.	13.1 Research states for census information. 13.2 Record and research climates, temperature, rainfall, and peculiar weather features of states. 13.3 Research oil needs in terms of climate, population and transportation.
14. Students should be able to locate a site for the opening of a new service station in their community.	14.1 Contact Chamber of Commerce and review how they survey prime locations for a business site. 14.2 Using the Chamber of Commerce survey, have students select possible location for a service station in their community other than existing ones.
15. Students should be able to identify city ordinances in dealing with purchase of property.	15.1 Student will visit local Department of Planning and Development, Division of Building Regulations, Board of Adjustment, Planning Board, and Division of Planning.
16. Student should be able to understand the procedures necessary to operate a business successfully (e.g. service station).	16.1 Students should contact realtors and determine cost of properties.
17. Student should be able to locate a business site from a number of prime locations using traffic flow figures.	17.1 Given prime locations in the community, students should discuss ways of determining best site for a service station.

CAREER EDUCATION CURRICULA

INDUSTRY GRADE LEVEL 7,8, and 9

THROUGH SERVICE STATIONS

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
13.a Give student a map of the United States and locate four climatic regions, four major population areas, and four transportation systems, and indicate where oil needs are greatest.	13.1 U.S. Weather Resource Center 13.2 Atlases 13.3 U.S. Government Printing Office and Census Bureau 13.4 A.A.A.
14.a Student's survey will be sent to the Chamber of Commerce for their approval or disapproval.	14.1 Chamber of Commerce 14.2 Real Estate laws
15.a List the city ordinances and departments that apply to the opening of an additional service station in your community.	15.1 Trips to departments and speakers from departments dealing with planning and development.
16.a Given two locations and information, given traffic flow for each location, student will be able to choose the best location and justify his answer.	15.2 Speakers: realtor, service station owner, bank loan officer. 16.1 Traffic flow figures from local police department.

AREA OF COMMUNITY EMPHASIS OIL

GOAL TO UNDERSTAND MARKETING AND DISTRIBUTION OF GAS

OUTCOME	SUGGESTED ACTIVITIES
BUSINESS AND OFFICE ENGLISH	
18. Student should be able to list the advantages and disadvantages of self-employment opportunities available in the petroleum industry (service station).	18.1 Speaker from company owned, leased service station, and speaker from a privately owned service station, discuss advantages of each type.
19. Students should be able to present, in salesmanship form, the advantages of certain retail oil products.	19.1 Learn traits of successful salesman: personality, grooming, speech, and punctuality. 19.2 Learn to use media for sales presentation. 19.3 Speaker: Salesman, video tape his speech; tape record, if no video tape is available. 19.4 Role playing.

INDUSTRY GRADE LEVEL 7, 8 and 9

THROUGH SERVICE STATIONS

SUGGESTED EVALUATION PROCEDURES	SUGGESTED MATERIALS AND RESOURCES
18.a Student will compile a list of each.	18.1 Guest speaker: self-employed service station owner, and company owned stations.
19.a Student will present a sales presentation to class emphasizing assigned products. Class will judge.	19.1 Taping equipment.

MULTI-DISCIPLINE, MULTI-CLUSTER

AREA OF COMMUNITY EMPHASIS RETAIL TEXTILE

GOAL TO UNDERSTAND THE LOCATION OF TEXTILE, RAW MATERIALS

OUTCOME	SUGGESTED ACTIVITIES
SOCIAL STUDIES	
1. Students should be able to identify these farm areas in the U.S. growing products useful in the clothing industry.	1.1 The teacher orally and with students will review the history of farming in the U.S. in cotton industry from pre-Civil War to the present.
	1.2 Students will build replica models of farm machinery from wooden plow to present day combines.
2. Given a list of jobs and people, past and present, students should be able to identify those connected with farming and its development.	2.1 The teacher, orally and with students will review the history of farming in the U.S. in the cotton industry from pre-Civil War to the present.
3. Students should be able to identify areas of the world from which the U.S. receives textiles not produced in large quantities in their own country (e.g. silk, wool).	3.1 Trace silk industry from planting of mulberry bushes to care and feeding of silk-worms, to collection of silk in raw state, to production into silk fabric (research in library).
	3.2 Collect samples by picture, drawing, or real things made of silk and wool.
	3.3 Speaker from 4H and/or State Agricultural Department.
4. Given a list of textile products, student should be able to identify principal manufacturing areas of the U.S.	4.1 Review, using U.S. maps, the manufacturing regions of the U.S.
5. Students should be able to cite major industries connected with these regions.	5.1 Discuss manufacturing areas of country best suited for complete manufacture, marketing, and distribution of the items.
	5.2 Selected book reports on the development of the textile industry.

Appendix B

A Career Education Curriculum Evaluation Instrument and its Directions

Name: _____

Date: _____

SECTION III

ASSESSMENT INSTRUMENT

TASK 1.0 IDENTIFICATION

1.1 Document Identification and Source. The first task is to identify the material.

Title _____

Author _____

Publisher/Source _____

_____

Address _____

_____

Retrieval Number if in ERIC or Other Retrieval System: _____

Date Published _____

Cost (if known) _____

Name of District _____

_____

Assessor _____

Position _____

(Include Grade Level) _____

Date Assessed _____

Document Number in District's System _____

Exited at EXIT 1 ☐ Yes ☐ No

Exited at EXIT 2 ☐ Yes ☐ No

Summary Rating of the Material:

☐ High Usefulness

☐ Average Usefulness

☐ Low Usefulness

1.2 Format. Further classify the material as to what it is, and for which group of users, department of the school, and for which grade level it is appropriate.

1.2.0 Packaging (Check one.)

- ☐ Single Piece (Item)
- ☐ Set of Independent Items
- ☐ Set of Related Items

1.2.1 Type of Material (Check all appropriate items.)

A. Printed Materials

- ☐ Instructional Unit
- ☐ Teacher's Guide
- ☐ Curriculum Guide
- ☐ Instructional Module for Student
- ☐ Student Workbook or Manual
- ☐ Laboratory/Practice Manual
- ☐ Textbook
- ☐ Simulation Situation
- ☐ Evaluation Instrument
- ☐ Administrative Material
- ☐ Bibliography or Directory
- ☐ Supplementary Reference Material for Student
- ☐ Other_____

B. Audiovisual Materials

- ☐ Records, Discs
- ☐ Audio Tapes
- ☐ Transparencies
- ☐ Models/Mock-Ups
- ☐ Flat Pictures
- ☐ Posters
- ☐ Charts and Graphs
- ☐ Single Concept Loops
- ☐ Films ☐8 mm ☐16 mm
- ☐ Filmstrips
- ☐ Cassettes
- ☐ Videotapes
- ☐ Slides
- ☐ Other_____

C. Manipulative Materials

- ☐ Puzzles
- ☐ Laboratory Kits
- ☐ Puppets/Dolls/Figures
- ☐ Activity Kits
- ☐ Tools and Related Items
- ☐ Games
- ☐ Blocks and Related Items
- ☐ Rods/Counters/Etc.
- ☐ Other_____

1.2.2 Grade, Reading, and Comprehension Levels
(Check at least one level for both categories.)

Designed Grade Level		Estimated Reading Level
☐	Early Elementary (K-3)	☐
☐	Upper Elementary (4-6)	☐
☐	Middle School (7-9)*	☐
☐	Senior High School (10-12)	☐
☐	Post Secondary (13-14)	☐

1.2.3 Who Will Use It?

- ☐ Students
- ☐ Instructional Personnel
- ☐ Support Service Personnel
- ☐ Parents
- ☐ Community at Large
- ☐ Business/Labor/Industrial/ Professional Persons
- ☐ Other_____

1.2.4 Special Learning Needs**

Is the item directly aimed at a student with a special learning need?

☐ YES (Check appropriate items below.) ☐ NO

- ☐ Gifted and Talented
- ☐ Mentally Retarded
- ☐ Physically Handicapped (Specify:_____)
- ☐ Emotionally Disturbed
- ☐ Culturally Deprived

1.2.5 Activity Areas

A. Subject-Matter Area or Cocurricular Activity Towards Which Materials are Directed**

- ☐ Agriculture
- ☐ Art
- ☐ Business
- ☐ Distributive Education
- ☐ English Language Arts
- ☐ Foreign Languages
- ☐ Health Occupations Education
- ☐ Health and Safety in Daily Living, Physical Education and Recreation
- ☐ Home Economics
- ☐ Industrial Arts
- ☐ Mathematics
- ☐ Music
- ☐ Natural Sciences
- ☐ Office Occupations
- ☐ Social Sciences/Social Studies
- ☐ Technical Education
- ☐ Trade and Industrial Occupations
- ☐ General Elementary and General Secondary Education
- ☐ Differentialized Curriculum for Handicapped Pupils
- ☐ Cocurricular Activities
- ☐ Safety and Driver Education
- ☐ Junior ROTC

*Recognizing geographic variance, a commonly used range has been selected.

**The categories in 1.2.4 and 1.2.5A are taken directly from Handbook VI, Standard Terminology for Curriculum and Instruction in Local and State School Systems, U.S. Department of Health, Education, and Welfare, 1970, O.E.-23052.

1.2.5 (Cont.)

B. Other Content Areas

- ☐ Career Guidance/Counseling
- ☐ Career Information
- ☐ Community Relations
- ☐ Evaluation
- ☐ Follow-Up
- ☐ Management
- ☐ Placement
- ☐ Staff Development
- ☐ Work Experience
- ☐ Other _____

1.2.6 Instructional Approaches
(Check one or more.)

- ☐ Self-Instructional
- ☐ Lecture
- ☐ Discussion
- ☐ Programmed Instruction
- ☐ Modeling
- ☐ Simulation or Gaming
- ☐ Individualized Projects
- ☐ Role Playing
- ☐ Field Observations
- ☐ Self-Evaluation
- ☐ Demonstrations
- ☐ Drill and Practice
- ☐ Individual or Group Counseling
- ☐ Supervised Work Experience
- ☐ Lab Practice
- ☐ Dramatic Activities
- ☐ Other _____

1.2.7 Objectives of Materials
(Check one or more.)

The following are sugested goals from the U.S. Office of Education. The user may substitute alternate goals.

This material will help students to:

- ☐ Increase their self-awareness.
- ☐ Increase their basic academic/vocational skills.
- ☐ Increase their awareness of work values and their desire to engage in paid and/or unpaid work.
- ☐ Increase their awareness of and knowledge about work.
- ☐ Increase their competency in career decision-making skills.
- ☐ Learn good work habits.
- ☐ Demonstrate work-seeking and work-getting skills.
- ☐ Be successful (when leaving the formal educational system) in being placed in a paid occupation, in further education, or in unpaid work that is consistent with their current career education.
- ☐ Be aware of means available for continued education once they have left the formal educational system.

Does the material meet one or more of the goals of career education? If the answer is no, it is suggested that the assessment process stop and that the material be exited (rejected).

☐ YES ☐ NO (Page 4 of 14)

EXIT 1

TASK 2.0 QUALITY: This task has to do with the quality of the materials. How valuable are they? Would you use them? Would you recommend them to others? The first part of this task has to do with determining the adequacy of the content in terms of the goals prescribed.

2.1 Adequacy and Consistency. Are goals and specific objectives contained in the material? Does the content support these goals and objectives?

2.1.1 To what extent are the overall objectives or goals for which the materials have been designed clearly set forth? (Objectives are the broad purposes of the material.)*

3	1	3	5
☐ Not applicable.	☐ No objectives are identified.	☐ Objectives are identified but are vague and/or need to be improved upon.	☐ Objectives are clearly stated.

2.1.2 To what extent is the nature and scope of the material content adequate to reach the objectives?

3	1	3	5
☐ Not applicable.	☐ There is no evidence that material content is directed toward defined objectives.	☐ Material content is directed to attain its objectives but lacks clear, direct focus.	☐ Material content is directed to attain its objectives in clear, accurate, and consistent terms.

2.1.3 To what extent are expected outcomes through use of material identified? (Outcomes are specific learnings which the student is expected to accomplish.)

3	1	3	5
☐ Not applicable.	☐ Outcomes are not cited or are inadequate.	☐ Outcomes are set forth but need improvement and/or expansion.	☐ Outcomes in terms of behavior and/or level of performance are clearly indicated.

2.1.4 To what extent are there sound methods for measuring achievement consistent with the expected outcomes?

3	1	3	5
☐ Not applicable.	☐ None are indicated.	☐ Methods are identified but improvements should be made.	☐ Techniques, procedures, and schedules are adequate.

*An explanation of the scoring system is found in Part IV under Task 2.0.

2.1.5 Is the organization and presentation of the content consistent with objectives and outcomes?

3	1	3	5
☐ Not applicable.	☐ Material is not well organized and/or as poorly presented.	☐ Material is generally well organized and presented, but improvements should be made.	☐ Material content is well organized and few inconsistencies were identified.

2.1.6 Is the format of the material adequate for easy usage?

3	1	3	5
☐ Not applicable.	☐ Format does not facilitate its use.	☐ Format is adequate but needs improvement.	☐ Format facilitates its use.

2.1.7 Is the material content consistent with growth and development characteristics (physical, emotional, social, and intellectual) of target groups?

3	1	3	5
☐ Not applicable.	☐ Content is directed to one growth and development characteristic.	☐ Content is directed to two growth and development characteristics.	☐ Content is directed to three or more growth and development and characteristics.

2.1.8 Are the methods suggested for the presentation of the content consistent with current knowledge of sound learning theories?

3	1	3	5
☐ Not applicable.	☐ There is little evidence of consistency.	☐ Improvements are necessary to make suggested methods consistent.	☐ Methods for presentation consistently reflect awareness and application of sound learning theories.

2.1.9 Are the methods suggested for the presentation of content consistent with current knowledge of student motivational techniques?

3	1	3	5
☐ Not applicable.	☐ There is little evidence of consistency.	☐ Improvements are necessary to made suggested methods consistent.	☐ Methods for presentation consistently reflect awareness and application of sound student motivational techniques.

☐ TOTAL RAW SCORE FOR TASK 2.1 (Transfer score to Objective Rating Box on page 14).

2.2 Evaluation Procedures. Does the material include a sound evaluation process which assists the user in measuring student needs and accomplishments?

2.2.1 To what extent are techniques and procedures for sound evaluation specified?

3	1	3	5
☐ Not applicable.	☐ Techniques and procedures are not specified.	☐ Techniques and procedures are specified but cannot be easily modified for special user requirements.	☐ Techniques and procedures are clearly identified and sufficiently flexible to meet unique user needs.

2.2.2 Are there provisions for pre-testing?

3	1	3	5
☐ Not applicable.	☐ No.	☐ Pre-testing is recommended, but techniques and procedures for doing so are inadequate.	☐ Techniques and procedures are clearly set forth and adequate.

2.2.3 Are there provisions for post-testing?

3	1	3	5
☐ Not applicable.	☐ No.	☐ Post-testing is recommended, but materials and procedures for doing so are inadequate.	☐ Materials and procedures are clearly set forth and adequate.

2.2.4 To what extent are there provisions for individual and group diagnostic testing?

3	1	3	5
☐ Not applicable.	☐ None	☐ Techniques and procedures exist but they require greater detail and/or clarity for general application.	☐ Sound techniques and procedures exist for both individual and group testing.

2.2.5 To what extent are remediation procedures identified?

3	1	3	5
☐ Not applicable.	☐ None.	☐ Procedures exist but additional direction is needed for specific applications.	☐ Sound procedures exist for remediation and specific applications.

[ ] TOTAL RAW SCORE FOR TASK 2.2 (Transfer score to Objective Rating Box on page 14).

2.3 Versatility. Is this material adaptable to a variety of instructional situations? Does it recognize the need for individual instruction--for group instruction? Is it relevant to the interests of students from different socioeconomic groups?

2.3.1 To what extent are various optional instructional strategies provided? (Instructional strategies are methods of teaching such as simulation, group instruction, individual programs, etc.)

3	1	3	5
☐ Not applicable.	☐ Unit can be taught by only one instructional strategy.	☐ Adaptable to a narrow range of instructional strategies (2-4).	☐ Adaptable to a broad range of instructional strategies (5 or more).

2.3.2 To what extent is a range of student activities provided that involves students in different kinds of learning experiences?

3	1	3	5
☐ Not applicable.	☐ Provides for a very limited variety of student activities; not easily adaptable.	☐ Provides some variety of student activities and could easily be changed to increase adaptability.	☐ Provides many varied learning activities for students.

2.3.3 To what extent are alternative activities for students with special needs (learning or physical handicaps) provided?

3	1	3	5
☐ Not applicable.	☐ No specific recognition of special needs; material difficult to adapt.	☐ Some recognition of special needs (e.g., slow readers); easily adaptable.	☐ Recognizes student differences and provides for activities uniquely suited to students with special needs.

2.3.4 To what extent is individual as well as group instruction provided?

3	1	3	5
☐ Not applicable.	☐ No individualized instruction and difficult to adapt.	☐ Individualized instruction.	☐ Individualized and group provisions.

2.3.5 To what extent does the material relate to the interests of the target age group?

3	1	3	5
☐ Not applicable.	☐ Low interest value.	☐ High interest value in spots, but limited in scope.	☐ High interest value throughout.

☐ TOTAL RAW SCORE FOR TASK 2.3 (Transfer score to Objective Rating Box on page 14).

2.4 User Needs. Does the material provide adequate directions, background information, explanations of needed skills and/or training, etc., to assist the user in determining if he or she can easily utilize the material?

2.4.1 To what extent are user directions provided?

3	1	3	5
☐ Not applicable.	☐ None.	☐ Limited to use by a person experienced with the content presented.	☐ Adequate for use by an inexperienced person as well as a person familiar with its content.

2.4.2 To what extent is background information provided to the user so that the person will not have to go beyond the material to seek help?

3	1	3	5
☐ Not applicable.	☐ None.	☐ Incomplete and requires extensive study and other resources.	☐ Adequate for use without knowledge attained from prior experience or other resources.

2.4.3 To what extent are user strategies specified?

3	1	3	5
☐ Not applicable.	☐ None.	☐ Inadequate to guide an inexperienced user with alternatives for consideration.	☐ Sufficiently detailed to aid the user to assess alternative strategies.

2.4.4 To what extent are resource materials identified and referenced so the user can obtain them?

3	1	3	5
☐ Not applicable.	☐ None.	☐ Primary resources identified but not referenced.	☐ Resource materials are sufficiently documented to enable the user to acquire them.

2.4.5 To what extent are the specific skills required of the user identified and detailed?

3	1	3	5
☐ Not applicable.	☐ None.	☐ Skills identified are incomplete and/or in insufficient detail.	☐ Skills required of the user are identified and clearly detailed.

2.4.6 To what extent are directions for additional training provided?

3	1	3	5
☐ Not applicable.	☐ None, but additional training is necessary.	☐ Inadequate for use without additional information and guidelines.	☐ Adequate for most additional training required without additional information and guidelines.

2.4.7 To what extent are training materials identified and provided?

3	1	3	5
☐ Not applicable.	☐ None, but needed.	☐ Materials are identified but not provided or are not adequate.	☐ Materials needed are identified and those provided are suitable.

☐ TOTAL RAW SCORE FOR TASK 2.4 (Transfer score to Objective Rating Box on page 14).

TASK 3.0 SPECIAL CONDITIONS FOR USE: This task involves making a determination as to whether or not this material can be used in a typical school situation or if there are special requirements for its use which may impose new "costs" upon your district.

3.1 Personnel and Staffing
(Staffing Patterns)

- ☐ (Not Applicable)
- ☐ Team Teaching
- ☐ Differentiated Staffing (Describe)
  _____
  _____
- ☐ Low Pupil-Teacher Ratio
- ☐ Paraprofessional Support
- ☐ Peer Student Support
- ☐ Special Support Personnel (Describe)
  _____
  _____
- ☐ Specially Trained Instructor (Describe)
  _____
  _____
- ☐ Other _____

3.2 Scheduling and Organization

- ☐ (Not Applicable)
- ☐ Unique Grade Organization (Describe)
  _____
  _____
- ☐ Outside Normal Day/Year (Describe)
  _____
  _____
- ☐ Modular or Flexible Schedule
- ☐ Community Organization Based Classroom
- ☐ Industry or Business-Based Classroom
- ☐ Other _____

3.3 Equipment and Facilities

- ☐ (Not Applicable)
- ☐ Open Space, Multiple Group Instruction Special Facilities (Describe)
  _____
  _____
- ☐ Special Equipment (Describe)
  _____
  _____
- ☐ Special Transportation (Describe)
  _____
  _____
- ☐ Other _____

3.4 Community Resources

- ☐ (Not Applicable)
- ☐ Volunteer Support, General or Specific
- ☐ Industry/labor/Business Instructors
- ☐ Community Agency Support
- ☐ Home and Family Participation
- ☐ Work Experience Stations
- ☐ Other _____

TASK 4.0 CONTENT BIAS: Instructional material containing bias, either in illustration or copy, has to be questioned as to its usefulness. The following are suggested questions to use in evaluating the use of the materials in a local situation.

4.1 Material is free of racial bias.
☐ Yes ☐ No

4.2 Material is free of ethnic bias.
☐ Yes ☐ No

4.3 Material is free of religious bias.
☐ Yes ☐ No

4.4 Material is free of sex role stereotyping.
☐ Yes ☐ No

4.5 Material is free of job denigration.
☐ Yes ☐ No

4.6 Material accurately and objectively presents descriptions of life-styles and social conditions associated with the career categories involved.
☐ Yes ☐ No

4.7 Material contains role-models to which a member of a minority group can relate.
☐ Not Applicable ☐ Yes ☐ No

4.8 If the material contains visuals, the characters depicted represent a variety of racial groups.
☐ Not Applicable ☐ Yes ☐ No

4.9 Material includes characters with names indicative of a variety of ethnic groups.
☐ Not Applicable ☐ Yes ☐ No

4.10 With minor additions/revisions the material can include a positive reference to minority groups.
☐ Not Applicable ☐ Yes (How?) ☐ No (Why not?)

4.11 Any bias identified can be eliminated by recommended changes indicated in the assessor's statement below.
☐ Not Applicable - no bias identified
☐ Yes
☐ No (reject material)

EXIT 2

Assessor's statement of recommended changes:

_____

_____

_____

_____

TASK 5.0 RESEARCH DATA PROVIDED: If there is research accompanying the material, the assessor is to identify the type of research, note the results, and evaluate its quality. If research material is not available, this task may be ignored without significantly altering the assessment process.

5.1 The item has documented evidence of investigation and evaluation:
☐ Yes ☐ No ☐ Unknown

Source of Evidence: _____

5.2 Types of Students

☐ General, Homogeneously Grouped
☐ General, Heterogeneously Grouped
☐ Handicapped
☐ Non-Readers
☐ Non-English Speaking
☐ Gifted
☐ Other _____
(Specify)

5.3 Sample Size

☐ Less than 50
☐ 50 to 99
☐ 100 to 199
☐ More than 200 _____
(Specify)

5.4 Location of Target Student Group Tested

☐ Inner City
☐ City (population of less than 100,000 but not restricted to inner city)
☐ City (population of more than 100,000 but not restricted to inner city)
☐ Suburban
☐ Rural
☐ Other _____
(Specify)

5.5 What specific tests were used for pre-testing?

5.6 What specific tests were used for post-testing?

5.7 Were control groups used?

5.8 What specific types of statistical techniques were applied?

5.9 What were specific changes in post-test/pre-test results?

5.10 Additional information and/or clarification regarding research data:

5.11 Was the research adequate enough to base your adoption of the material upon it? Why or why not?

TASK 6.0 SUMMARY EVALUATION: With the material carefully reviewed, it is necessary to make a final professional judgment.

In the following space the assessor is to give a summary description of the material which should include both identification information and the assessor's qualitative opinion.

Objective Rating

Maximum Points Possible	Task Number	Raw Score	Weight* Factor	Weighted Total Points
45	2.1		1	
25	2.2		1	
25	2.3		1	
35	2.4		1	

130 Total Possible Points

____ Total Raw Score

____ % Evaluation Score (Raw Score = ___% of Total Possible Points)

Item is placed in:

- ☐ High-level priority: most useful
- ☐ Middle-level priority: it is useful if nothing of first-level priority is available
- ☐ Low-level priority: should only be used if nothing else is available

Please record this scoring on the front page.

*An explanation of alternative uses of the weighted scoring system can be found in the instructions for Task 6.0 in Part IV.

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IV. USE OF THE ASSESSMENT INSTRUMENT

This section of the report consists of a detailed outline on use of the assessment instrument and defines those terms used in each "task" or step in the procedure.

TASK 1.0 - IDENTIFICATION

Task 1.0 identifies and classifies the material through descriptions of (a) packaging, (b) type of material, (c) grade, reading, and comprehension levels, (d) special learning needs, (e) subject areas, (f) instructional approaches, and (g) objectives. A detailed description of each of these elements is found in the following paragraphs.

1.2.0 Packaging

Single Piece One item, totally unrelated to any other piece of material, not part of a series or set, and can stand alone in appropriate use in a school program (e.g., supplementary reference material, achievement test, or curriculum guide).

Set Consisting of Independent Items. The items in the set are self-contained and may be used independently of each other. Though prepared as a set, they can usually be obtained separately and can definitely be used separately (e.g., a set of occupational manuals, a set of teaching units, a set of instructional modules). It is recommended that each item in a set be assessed separately.

Set Consisting of Related Items. The items in the set are not self-contained but are dependent on each other or interrelated to the extent that they cannot be used separately. Their value rests on the fact that together they make a worthwhile unit of curriculum materials. Such sets are usually prepared as one item or unit (e.g., a set of transparencies, a set of unit tests, a curriculum guide with accompanying administrative manuals, reports, testing instruments, etc.). Since the items are dependent upon each other they should be assessed together.

1.2.1 Type of Material

A. Printed

Instructional Unit. A guide which is broad in nature and directs instructional personnel to teaching techniques or assists them in

Supplementary Reference Material for Student. Materials which are self-contained, not part of a related set or text. They would be used in addition to other curriculum materials or made available to students for use at their own discretion.

1.2.2 Grade, Reading, and Comprehension Levels

Instructional material is developed for a specific grade or series of grades. In some cases material is developed for a student population of a particular grade range with a reading comprehension either superior or inferior to their grade level. The assessor is asked (a) to identify the grade range for which the material is developed and (b) to decide if the reading level matches the grade level--is it higher than the designated grade level, or lower.

1.2.4 Special Learning Needs

The following definitions of students with special learning needs are based on Handbook VI, Standard Terminology for Curriculum and Instruction in Local and State School Systems, U.S. Department of Health, Education, and Welfare, 1970, O.E.-23052.

Gifted and Talented. Pupils identified by professionally qualified personnel as being mentally gifted or talented in areas such as general academic work, fine arts, vocational and technical areas, athletics, human relationships, etc.

Mentally Retarded. Pupils identified by professionally qualified personnel as being mentally retarded, according to degree of retardation. This includes those individuals whose level of mental development is such that they have been identified as unable, without special help, to profit from the usual school program.

Physically Handicapped. Pupils identified by professionally qualified personnel as having one or more physical handicaps; this would include the blind, the hard of hearing, those with speech defects, and the crippled.

Emotionally Disturbed. Pupils identified by professionally qualified personnel as having an emotional handicap of such a nature and severity as to require one or more special services.

Culturally Deprived. Pupils who have deviations or deficiencies in cultural or environmental background that adversely affect their learning ability or general performance in school.

developing certain kinds of units. It requires much additional planning by the user.

Teacher's Guide. An aid to help teachers use or implement a particular curriculum material; it usually accompanies the material.

Curriculum Guide. Teacher-directed materials, informational in nature, which help the teacher to plan and carry out programs of study.

Instructional Module for Student. Instructional modules are units or parts of units of instruction developed in modular form for student use with or without the supervision of an instructor through each step. They may also be described as a LAP (Learning Activity Package) or a UNIPAC.

Student Workbook or Manual. Student-directed materials usually referenced to an item in an accompanying textbook. It can be a supplementary unit which a teacher would use for drill and practice exercises, or it may be a handbook of the "how-to" type or an informational piece for students.

Laboratory/Practice Manual. Provides exercises or experiences which give students an opportunity to apply or practice learning in a laboratory situation.

Textbook. A "standard" text for the grade and/or subject field involved.

Simulation Situation. A technique in which the instructor reproduces in the classroom, or elsewhere, "real-life" situations.

Evaluation Instrument. Achievement tests, aptitude tests, self-tests, or other materials which help teachers assess their students or their programs are considered evaluation instruments.

Administrative Material. Material directed at noninstructional personnel which provides assistance in managing and administering a school program or a phase thereof.

Bibliography or Directory. List of references, resource materials, or resource persons.

1.2.5 Activity Areas

A. Subject-Matter Area or Cocurricular Activity Toward Which Materials are Directed.

The following definitions of subject fields are based on Handbook VI, Standard Terminology for Curriculum and Instruction in Local and State School Systems, U.S. Department of Health, Education, and Welfare, 1970, O.E.-23052.

Agriculture. Agriculture is comprised of the group of related courses or units of subject matter which are organized for carrying on learning experiences concerned with preparation for or upgrading of occupations requiring knowledge and skills in agricultural subjects.

Art. Art is comprised of the organized body of subject matter or related courses involving primarily visual, tactile, kinesthetic expression.

Business. Business includes the body of related subject matter, or related courses, and planned learning experiences designed to develop in pupils the attitudes, knowledge, skills, and understanding concerned with business principles and practices having applications for personal use and/or activities.

Distributive Education. Distributive education includes various combinations of subject matter and learning experiences related to the performance of activities that direct the flow of goods and services, including their appropriate utilization from the producer to the consumer or user.

English Language Arts. English language arts is comprised of the body of related courses, organized for carrying on learning experiences concerned with developing (1) an understanding of the language system; (2) proficiency and control in the use of the English language; (3) appreciation of a variety of literary forms; (4) understanding and appreciation of various aspects of past and present cultures as expressed in literature; and (5) interests which will motivate lifelong learning.

Foreign Languages. The body of subject matter in this area is comprised of a variety of foreign languages, including English as a foreign language.

Health Occupations Education. Education for health occupations comprises the body of related subject matter, or the body of related courses, and planned experiences designed to impart knowledge and develop the understanding and skills required to support the health professions.

Health and Safety in Daily Living, Physical Education and Recreation. The body of related subject matter and activities in health and safety in daily living, physical education, and recreation is organized for carrying on learning experiences concerned with developing (1) knowledge, attitudes, appreciation, and conduct essential to individual and group health; (2) awareness of, concern for, and knowledge, skills, and judgment necessary for practicing and promoting personal and public safety in the home, at school, on the job, and in traffic; and (3) physical and mental growth and fitness by means of activities designed to improve the muscles, motor skills, and attitudes and habits of conduct of individuals and groups.

Home Economics. Home economics comprises the group of related courses or units of instruction organized for purposes of enabling pupils to acquire knowledge and develop understanding, attitudes, and skills relevant to (1) personal, home, and family life, and (2) occupational preparation using the knowledge and skills of home economics.

Industrial Arts. Industrial arts is the body of related subject matter, or related courses, organized for the development of understanding about the technical, consumer, occupational, recreational, organizational, managerial, social, historical, and cultural aspects of industry and technology.

Mathematics. Mathematics comprises the body of related subject matter, or the body of related courses, organized for carrying on learning experiences concerned with the science of methods used for deducing from other quantities, known or supposed, the quantities sought.

Music. Music is the fine art that utilizes sounds in time in a meaningful and organized manner.

Natural Sciences. The natural sciences include the body of related subject matter, or the body of related courses, with the knowledge of the physical and biological world and of the processes of discovering and validating this knowledge.

Office Occupations. This body of subject matter, or combinations of courses and practical experience, is organized into programs of instruction to provide opportunities for pupils to prepare for and achieve career objectives in selected office occupations.

Social Sciences/Social Studies. The social sciences/social studies are comprised of interrelated subject matter organized to impart knowledge, develop skills, and identify goals concerning elements and institutions of human society in the disciplines of history, economics, political science, sociology, anthropology, psychology, geography, and philosophy.

Technical Education. Technical education is concerned with that body of knowledge organized in a planned sequence of classroom and laboratory experiences, usually at the postsecondary level, to prepare pupils for a cluster of job opportunities in a specialized field of technology.

Trade and Industrial Occupations. Trade and industrial occupations is the branch of vocational education which is concerned with preparing persons for initial employment or for upgrading or retraining workers in a wide range of trade and industrial occupations.

General Elementary and General Secondary Education. These terms usually refer to instruction which takes place in a self-contained class. Learning experiences are concerned with the knowledges, skills, appreciations, attitudes, and behavioral characteristics considered to be needed by all pupils in terms of the broad educational outcomes which should be achieved by all pupils to the limits of their capacities during the elementary and secondary school years or grades.

Differentialized Curriculum for Handicapped Pupils. The differentialized curriculum for handicapped pupils reflects an increasing awareness today of the individual needs of children. Many children with various types of handicaps cannot benefit from basic subject matter without special education. Handicapped children present learning difficulties and sensory and motor impairments which require careful study for successful adaptation of instruction. Teachers of exceptional children integrate professional information from psychology, education, and medicine for instructional and therapeutic services. Consequently, special education, as applied to each type of handicapped child, has developed some distinctive techniques and materials which distinguish it from regular classroom instruction.

Cocurricular Activities. Cocurricular activities (experiences) are comprised of the group of school-sponsored activities, under the guidance or supervision of qualified adults, designed to provide opportunities for pupils to participate in such experiences on an individual basis or in small or large groups--at school events, public events, or a combination of these, for purposes such as motivation, enjoyment, and improvement of skills.

Safety and Driver Education. The subject matter and related activities in safety and driver education are organized for carrying on learning experiences concerned with developing the ability to respond appropriately and efficiently (a) in the operation of a motor vehicle and (b) as a pedestrian in traffic.

Junior ROTC. Junior ROTC is comprised of a body of subject matter, or combinations of courses and practical experience, organized into programs of instruction to provide opportunities for pupils to prepare for and achieve career objectives in selected branches of the military service.

B. Other Content Areas

While local school systems may have their own definitions of the following terms, the definitions that follow are suggestive of the types of activities implied in a career education context.

Career Guidance/Counseling. Individual and/or group assistance aimed at helping persons become aware of, explore, make decisions about, prepare for, enter, and/or progress in various types of paid or unpaid work.

Career Information. Printed or nonprinted material describing the characteristics, benefits, required education and training, and life-style associated with one or more types of paid or unpaid work.

Community Involvement. The use of business, labor, industry, professional, community, government, home, and family persons and/or settings as resources in the planning and/or operation of educational programs.

Evaluation. The design and implementation of plans for the collection of data to study and improve the operation and effectiveness of educational activities.

Follow-Up. The act of collecting and analyzing information gained from prior participants in an educational activity for the purpose of assisting these persons in their present position and/or improving existing or future educational programs.

Management. The process of supervising the design and operation of planned activities including the processes of problem identification, needs assessment, priority setting, solution generation, activity planning, operational implementation, and evaluation.

Placement. The act of successfully assisting persons to enter paid jobs, further education, or other activities consistent with their previous education and work experience.

Staff Development. The training or retraining of professional and support personnel, as individuals and/or groups, to improve their knowledge and/or skills in career education.

Work Experience. Part-time or full-time observation or active participation in a paid or unpaid work setting for the purpose of becoming aware of, exploring, or preparing for future work opportunities.

1.2.6 Instructional Approaches

Instructional approaches are strategies or teaching skills that have been identified as being necessary to successfully teach an instructional unit. The 17 items listed are self-explanatory. Check as many as are necessary to describe the teaching techniques included, stressed, and/or provided for in the curriculum materials.

1.2.7 Objectives of Materials

The goals or objectives stated in the assessment instrument are suggested by the U.S. Office of Education. The user may, however, substitute an alternative set of goals. If the unit of instructional material fails to meet any of the established goals, it is suggested that the assessment stop and the material be exited (rejected).

The goals suggested by the U.S. Office of Education are stated in terms of student growth. The assessment instrument is based heavily on the utility of the materials in an educational system and the extent to which they are directed to a variety of instructional objectives, issues, and needs. It is assumed that there is a direct relationship between teaching behaviors and learning outcomes. Making available to teachers a range of effective and useful career education materials should help to being about viable learning in their classrooms.

TASK 2.0 - QUALITY

After identifying and classifying the material and determining that it meets career education goals, the assessor goes on to evaluate the quality of the material. A rating system has been designed to lend a measure of objectivity to what essentially is a subjective analysis.

There are four possible answers to each question in Task 2.0; each has been given a rating. If the assessor feels that the material does not meet the objectives, he/she checks the appropriate box, which carries a minimum score of 1 point. If the assessor thinks the material meets the requirement but could stand improvement, he /she checks the box carrying the average score of 3 points. If the assessor wishes to indicate that the material is outstanding on the particular point,

he/she checks the box carrying the maximum 5-point rating. There will be instances, however, where a question will not apply to the material being assessed. In order to accommodate this situation without penalizing the material, the assessor is to check the "Not applicable" response, which carries a score of 3 points. At the end of each subtask the assessor is to add the scores and transfer the totals to the appropriate space in the Objective Rating box found in Task 6.0 (Summary Evaluation).

The following is an explanation of the subtasks under Task 2.0.

2.1 Adequacy and Consistency

Effective use of materials depends partially on the adequacy and consistency of their design. Material design should be based on sound theories, proven research, successful applicable techniques, and the best judgment of authorities in the field. Materials should be designed so that the users can identify precisely the nature and scope of the content, the objectives to be attained, and the methodologies to be applied. Users should be assured that these three elements are compatible and consistent with each other as well as the stated goals of career education.

2.2 Evaluation Procedures

A sound evaluation process should provide opportunities for the users of materials to assess the strengths and weaknesses of their own classroom situations and to plan appropriate actions based on findings. To accomplish this the basis for the evaluation must be accurate and complete. It must include:

- identification of objectives to be attained over a prescribed period of time;
- criteria to be used in making the evaluation;
- measurement descriptions that provide a qualitative and/or quantitative determination of how well the criteria have been met;
- standards to determine whether the objectives to be attained are realistic and sound; and/or
- whether the means for making the evaluation should be changed.

2.3 Versatility

In evaluating materials a major concern is the extent to which they are adaptable to teaching styles and student learning styles. Without specifically

defining either set of characteristics, it is possible to examine materials with a concern for the flexibility and adaptability of the materials themselves. Indicators are whether or not the unit includes provisions for students with special needs, and optional teaching and/or instructional strategies (e.g., simulation, group instruction, individual programs). In general, a unit of material will be given a high rating if it (a) enables teachers to fit it into their own teaching styles and patterns of instruction and (b) meets the varied needs of students.

2.4 User Needs

Successful use of material depends, in part, on the adequacy of its content and the background and level of skill of the user. Requirements for the successful use of materials should be clearly set forth since many users may not be familiar with current career education principles and goals. The primary judgments to be made are the degree and/or adequacy of materials to stand alone. Ideally, those responsible for assignment of persons who will use the material should match the competence of the users with the degree to which support components are provided.

TASK 3.0 - SPECIAL CONDITIONS FOR USE

In this task the assessor identifies the special conditions for use of the instructional material relating to staffing, facilities, equipment, and so forth. The results of this task will be invaluable to the career education practitioners when they must determine if it is possible to utilize the material in their classrooms without imposing "costs" which the local school district would be unable to meet.

TASK 4.0 - CONTENT BIAS

Material which stereotypes sex roles, shows bias towards racial, ethnic, or religious groups, and/or imposes artificial hierarchies of social values on various job or occupational categories (job denigration), should be avoided. At the same time, it is important that accurate and objective descriptions of life-styles and social conditions associated with specific occupational categories be a part of a career education instructional unit. Where the evaluator checks a statement indicating the presence of bias in the unit, a recommendation for modification is to be included in the statement--providing the revisions are determined by the assessor to be comparatively minor.

TASK 5.0 - RESEARCH DATA PROVIDED

Material which has demonstrated its effectiveness in previous classroom situations will be of great interest to potential users. This task assists the assessor in analyzing research accompanying the material to determine the similarities in user situations, the type of research performed, and the success or failure of the material in earlier usage.

TASK 6.0 - SUMMARY EVALUATION

In this task the assessor summarizes the evaluation of the instructional material. The first step in this summary is to score the quantitative analysis found in Task 2.0. The assessor totals the raw scores and compares them with the total possible score and concludes with an evaluation rating expressed in a percent. This is particularly valuable when a number of units of material are being assessed. An objective comparison of the units can be readily made if the quantitative scoring process has been carefully completed.

The assessor then checks off whether the material is considered in a high, middle, or low priority for use. Different point ranges may be used to make this category placement more objective (e.g., 100-130 = high priority; 70-99 = middle priority; below 70 = low priority).

If the assessor feels that certain subtasks of Task 2.0 are more important than others, he/she may weight the scoring system accordingly. In the assessment sponsored by the U.S. Office of Education and conducted by PMM&Co. in 1974, the education professionals considered Task 2.1- Adequacy and Consistency and Task 2.2- Evaluation Procedures to be of such importance that they were each given a weight factor of 2. This meant that the assessors multiplied the raw scores for Task 2.1 and Task 2.2 by 2 to reach the weighted scores. This changes the Maximum Points Possible for Task 2.1 from 45 to 90; for Task 2.2 from 25 to 50; and for Total Possible Points from 130 to 200.

In the final step the assessor is to write a brief summary of his/her evaluation of the material, giving an idea of the identification, classification, and quality of the material. The purpose of a written summary is to share one practitioner's evaluation with others in the field. This final task can easily be transmitted to an index card to be stored in a central place within a school district or State department of education to be utilized by other educators seeking quality career education material for their particular classroom situations.